1924

YEAR BOOK

of the

Massachusetts Horticultural Society

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1924

Year Book

of the

Massachusetts Horticultural Society

with the

ANNUAL REPORT

for 1923

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Gift of
The Society
March 19, 1924.

Foreword

The annual report of the Massachusetts Horticultural Society for 1923 has been enlarged into the present volume by the Secretary. Supplementary matter of interest has been added in the hope of making the work of greater permanent value to members of the Society. A synopsis of the Society's history is given and a valuable paper on the raising of trees from seeds, for which there has been frequent demands, has been reprinted from the Society's Transactions of 1885. In consequence of the many changes in form and contents it has seemed advisable to alter the title and the Committee on Lectures and Publications takes pleasure in presenting the first number of the Society's Year Book, with which is combined the annual report for 1923.

E. H. Wilson, *Chairman,*

C. S. Sargent,

Committee on Lectures and Publications.

Boston, Mass.
February 23, 1924.

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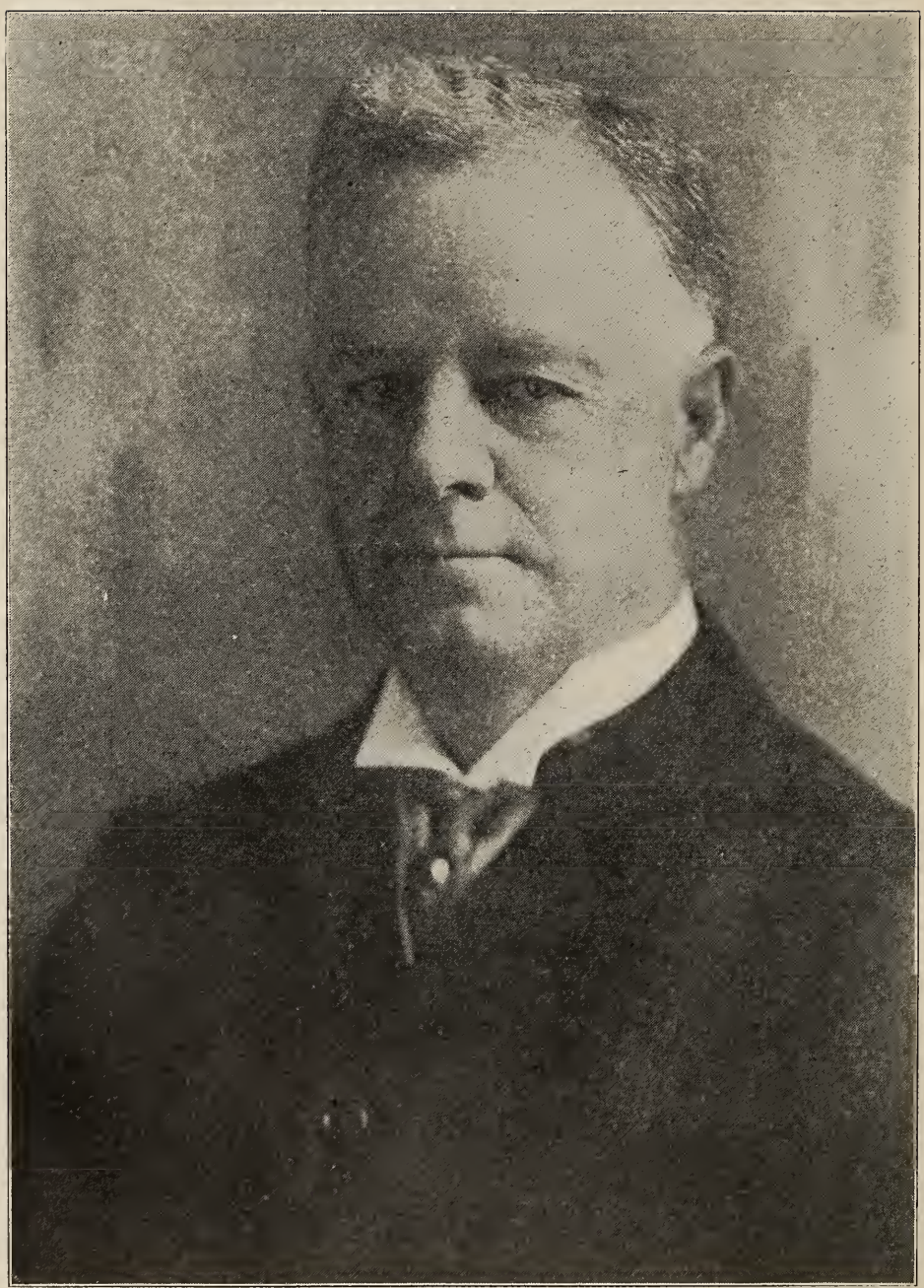


Mr. Albert C. Burrage

Now serving his fourth term as president

Massachusetts Horticultural Society

OFFICERS FOR 1924

President.

ALBERT C. BURRAGE, of Boston.

Vice-Presidents.

THOMAS ALLEN, of Boston.
CHARLES S. SARGENT, of Brookline.

Treasurer.

JOHN S. AMES, of North Easton.

Secretary.

E. I. FARRINGTON, of Weymouth.*

Trustees.

JOHN S. AMES, of North Easton.
FRANCIS H. APPLETON, of Boston.
ROBERT CAMERON, of Ipswich.
MISS MARIAN R. CASE, of Weston.
MRS. S. V. R. CROSBY, of Boston.
WILLIAM C. ENDICOTT, of Boston.
MRS. HOMER GAGE, of Worcester.
NATHANIEL T. KIDDER, of Milton.
ARTHUR LYMAN, of Boston.
HENRY H. RICHARDSON, of Boston.
THOMAS ROLAND, of Nahant.
MRS. BAYARD THAYER, of South Lancaster.
GEORGE C. THURLOW, of West Newbury.
HENRY P. WALCOTT, of Cambridge.
EDWIN S. WEBSTER, of Boston.
ERNEST H. WILSON, of Jamaica Plain.
FRED A. WILSON, of Nahant.

* Communications to the Secretary, on the business of the Society, should be addressed to him at Horticultural Hall, Boston.

COMMITTEES FOR 1924

Finance Committee

ALBERT C. BURRAGE, *Chairman*

JOHN S. AMES — WILLIAM C. ENDICOTT

Executive Committee

ALBERT C. BURRAGE, *Chairman*

THOMAS ALLEN — WILLIAM C. ENDICOTT — CHARLES S. SARGENT
JOHN S. AMES — THOMAS ROLAND

Membership Committee

MISS MARIAN ROBY CASE, *Chairman*

MRS. BAYARD THAYER — GEORGE C. THURLOW

Committee on Prizes

THOMAS ROLAND, *Chairman*

ERNEST H. WILSON — ROBERT CAMERON

Committee on Exhibitions

THOMAS ALLEN, *Chairman*

W. N. CRAIG — THOMAS ROLAND — GEORGE F. STEWART
H. H. RICHARDSON

Committee on Library

CHARLES S. SARGENT, *Chairman*
NATHANIEL T. KIDDER

Committee on Lectures and Publications

ERNEST H. WILSON, *Chairman*
CHARLES S. SARGENT

Committee on Buildings

JOHN S. AMES, *Chairman*
FRED A. WILSON

Committee on Gardens

WILLIAM C. ENDICOTT, *Chairman*

MRS. FRANCIS B. CROWNINSHIELD — CHRISTIAN VANDERVOET

Committee on George R. White Medal of Honor

CHARLES S. SARGENT, *Chairman*

THOMAS ROLAND — WILLIAM C. ENDICOTT

Committee on Children's Gardens

JAMES WHEELER, *Chairman*

MISS MARIAN ROBY CASE — MISS LOUISA HUNNEWELL

Committee on Plants and Flowers

WILLIAM ANDERSON, *Chairman*

WILLIAM H. JUDD — DONALD McKENZIE
PETER ARNOTT — GEORGE F. STEWART

Committee on Fruits

ALBERT R. JENKS, *Chairman*

JAMES METHVEN — ANDREW K. ROGERS

Committee on Vegetables

WILLIAM N. CRAIG, *Chairman*

WALTER H. GOLBY — EDWARD PARKER

Horticultural Hall, Boston, Mass.

Outstanding Events in the History of the Massachusetts Horticultural Society

The Massachusetts Horticultural Society was organized February 24, 1829, at a meeting held in the insurance office of Zebedee Cook, Jr., and at an adjourned meeting at the same place on Tuesday, March 17. Gen. Henry A. S. Dearborn, of Roxbury, was elected president. It was incorporated by an act of the legislature approved by Governor Levi Lincoln on June 12, 1829.

The first books for the library were received by donation from Robert Manning, one of the founders of the Society, in 1829. The same year the Society began buying important books published in Europe. The first catalogue of the library was printed in 1831, showing a total of 190 volumes Beginning with 1847, $300 a year was appropriated for the library. This appropriation was later increased.

It is interesting to note the expressed hope by the founders of the Society as contained in the records, that "The Society might at some day diffuse horticultural information through a regularly published journal."

The first diploma was prepared in 1831. The present elaborately engraved diploma was adopted in 1841.

A tract of land in Cambridge and Watertown, known as Stone's Woods and also as Sweet Auburn, was purchased by the Society in 1831 from George W. Brimmer, to be used for establishing the cemetery which came to be known as Mt. Auburn Cemetery. An act authorizing the Massachusetts Horticultural Society to hold land for a rural cemetery was approved by Governor Lincoln, June 23, 1831. This was the first rural cemetery in the United States. The original plan called for an experimental garden to be connected with the cemetery, but this plan was soon abandoned. Consecration services were held at Mt. Auburn, Saturday, September 24, an address being delivered by the Hon. Joseph Story.

On June 22, 1833, the first vegetables tested at the experimental garden were distributed to members of the Society. At subsequent meetings other flowers and vegetables were distributed at the Society's hall. At the annual meeting

Library in Horticultural Hall

held in Faneuil Hall, September 17, 18 and 19, elaborate bouquets from the Society's gardens were used for decoration.

Mt. Auburn Cemetery in 1835 was disposed of to a new corporation, it having been found that the development of horticulture and the management of the cemetery did not go well together. It was agreed that one-fourth of the money derived from the sale of lots in the cemetery should be paid each year to the Massachusetts Horticultural Society. This arrangement has been continued to this day, a large amount of money having been derived by the Society from this source.

The seal of the Society was adopted in 1841, with the legend added in 1847.

The first tri-ennial festival of the Society was held in 1842, when more than 200 persons sat down to an elaborate dinner, the first occasion of the kind to which ladies were invited.

A building for the occupancy of the Society was completed on School Street, in 1845. This hall cost $37,682.72.

The first special Rose Show was held by the Society in June, 1849.

The custom of having an inaugural meeting, with an address by the president, was begun in 1850.

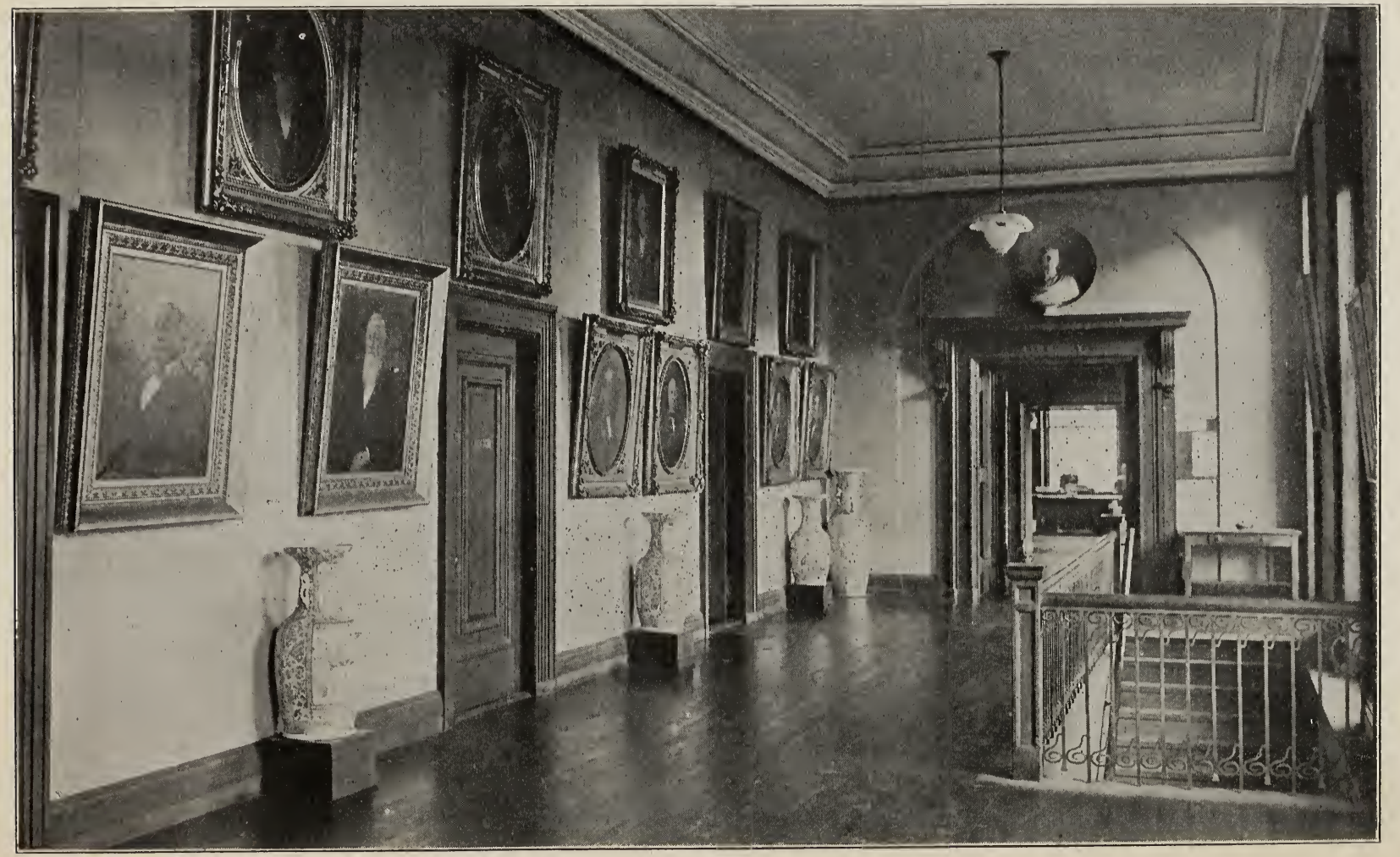
In 1860 the School Street building was sold for $69,459. In 1863 the Society purchased the Montgomery House, on Tremont Street, for $101,000, and erected a building on the site which brought the total cost, with the furnishings, to $246,889.

The beginning of the present collection of portraits and busts was made at the Tremont Street building in 1861, when the sum of $1,000 was appropriated for the purpose.

In June, 1873, a Rhododendron Show was held on Boston Common and was one of the most notable events in the history of the Society. The exhibition resulted in a profit of $1,565.28, which amount was invested by Mr. H. H. Hunnewell, who had charge of the exhibition, in two bonds of the Chicago, Burlington & Quincy Railroad.

The fourteenth session of the American Pomological Society was held in Boston in 1873, by invitation of the Massachusetts Horticultural Society, and brought together one of the largest assemblies of distinguished pomologists in the history of New England.

The Society sent a large exhibition to the Centennial Exposition held at Philadelphia in 1876. It is recorded that the



Presidents' Gallery, Horticultural Hall

number of dishes of pears from Massachusetts was greater than from all the other States together.

The semi-centennial anniversary of the Society was celebrated Friday, September 12, 1879, the oration being delivered by Hon. Marshall P. Wilder.

The Tremont Street Building having proved inadequate to meet the growing needs of the Society, was sold in 1900 for $600,000. Plans for a new building had already been made, and this building, the present Horticultural Hall, corner of Massachusetts and Huntington Avenues, was dedicated in November, 1901. The new building, which was designed by Wheelwright & Haven, cost $515,000, including the land.

The first flower show in the new building was held May 29, 1901, although the structure was not fully completed It was one of the most remarkable exhibitions ever staged in Boston, and was carried out under the direction of Professor C. S. Sargent, assisted by Miss Beatrix Jones of New York City.

In 1909 Mr. George Robert White, one of Boston's greatest benefactors, gave the Society $7,500, with directions that the interest should be used each year for a medal, to be known as the George Robert White Medal of Honor, and to be awarded yearly for eminent service in horticulture. Later a sister of Mr. White gave $2,500 more, making a total of $10,000, the interest of which is used for a medal made of purest gold, which is considered the highest horticultural award in America.

An Italian Garden exhibition was given in 1912, which attracted much attention, and was executed with remarkable skill under the direction of John K. M. L. Farquhar and James Farquhar.

The Society's second outdoor exhibition was held in 1917, on Huntington Ave., and was a notable event, although bad weather interfered with its success.

In 1920 Mr. Albert C. Burrage made monthly exhibits of Orchid plants in flower, showing the plants as they came into bloom throughout the year. These exhibitions attracted wide attention.

Mr. Burrage arranged a special exhibition of wild flowers and wild ferns in May 1922, which has been set down as in some ways the most successful exhibition ever held in the history of the Society, the attendance being 82,923.

The Best Apples for Massachusetts

DESSERT APPLES, FIRST CHOICE

	Date of Harvest	*Period of Consumption*
Red Astrachan	Aug. 5—15	Aug. 10—25
Williams	Aug. 10—20	Aug. 15—30
Chenango	Aug. 15—25	Aug. 15—30
Gravenstein	Aug. 20—31	Aug. 20—Sept. 15
Wealthy	Aug. 25—Sept. 10	Sept.—Oct.
McIntosh	Sept. 10—20	Oct.—Dec.
Delicious	Oct. 5—15	Nov.—Feb.
Northern Spy	Oct. 10—20	Nov.—Feb.
Baldwin	Oct. 10—20	Dec.—Apr.
Roxbury Russet	Oct. 10—20	Jan.—May

A SUPPLEMENTAL LIST OF DESSERT VARIETIES

	Date of Harvest	*Period of Consumption*
Primate	Aug. 5—15	Aug. 5—20
Early Harvest	Aug. 10—25	Aug. 10—30
Garden Royal	Aug. 15—30	Aug. 15—Sept.
Porter	Sept. 1—15	Sept.—Nov.
Mother	Sept. 15—30	Oct.—Jan.
Hubbardston	Oct. 1—15	Oct.—Jan.
Tompkins King	Oct. 1—15	Oct.—Feb.
Wagener	Oct. 10—20	Oct.—Feb.
Stark	Oct. 10—20	Jan.—May

KITCHEN VARIETIES

	Date of Harvest	*Period of Consumption*
Yellow Transparent	Aug. 1—15	Aug. 1—20
Oldenburg	Aug. 10—20	Aug. 10—31
Maiden Blush	Aug. 15—25	Aug. 15—Sept. 10
Gravenstein	Aug. 20—30	Aug. 20—Sept. 15
Wealthy	Aug. 25—Sept. 10	Sept.—Oct.
Twenty Ounce	Sept. 1—15	Sept.—Dec.
Rhode Island Greening	Oct. 5—15	Nov.—March

SWEET APPLES

	Date of Harvest	*Period of Consumption*
Sweet Bough	Aug. 5—15	Aug. 5—20
Golden Sweet	Aug. 15—30	Aug. 20—Sept.
Bailey Sweet	Sept. 15—30	Oct.—Jan.
Pumpkin Sweet	Sept. 15—30	Oct.—Jan.
Tolman Sweet	Oct. 1—10	Nov.—Feb.
Lady Sweet	Oct. 5—15	Nov.—Apr.

Shrubs Recommended for Massachusetts

Cotoneaster horizontalis
Forsythia intermedia spectabilis
Ilex verticillata
Kalmia latifolia
Ligustrum vulgare
Lonicera Maackii podocarpa
Philadelphus virginalis "Virginal"
Pieris floribunda
Rhododendron arborescens
" calendulaceum
Rhododendron carolinianum
" obtusum Kaempferi
Rosa Hugonis
" spinosissima altaica
Spiraea van Houttei
Symphoricarpos occidentalis
Syringa chinensis
Vaccinium corymbosum
Viburnum Carlesii
" cassinoides

Trees Recommended for Massachusetts

Acer saccharum
Acanthopanax ricinifolium
Aesculus Hippocastanum
Abies concolor
Abies homolepis
Catalpa speciosa
Cladrastis tinctoria
Cornus florida
Crataegus nitida
Juniperus virginiana
Magnolia glauca
Malus Halliana
Malus ioensis, var. plena
Pinus resinosa
Prunus serrulata sachalinensis
Tilia vulgaris
Tsuga caroliniana
Ulmus americana

Roses Recommended for Massachusetts

Frau Karl Druschki
George Arends
Mrs. John Laing
Ulrich Brunner
Magna Charta
Clio
Red Letter Day
Radiance
Rose Marie
Jonkheer J. L. Mock
Columbia
Mme. Leon Pain
Ophelia
Duchess of Wellington
Konigin Carola
Killarney
Lady Alice Stanley
Florence Pemberton

Hardy Perennials Recommended for Massachusetts

Delphiniums
Peonies
Iris
Aquilegias
Pompon Chrysanthemums
Asters
Anemone japonica
Lupines
Dictamnus
Campanulas
Hemerocallis
Phloxes
Dianthus
Violas
Gypsophilas
Heleniums
Rudbeckias
Lychnis
Pentstemons
Veronicas

Prize for Native Trees Offered

The Massachusetts Horticultural Society is offering a gold medal to be awarded at the end of the year 1926 to the owner of the finest native tree, a photograph of which is submitted for competition, the tree to have a trunk diameter of at least two feet, four feet above the ground, with size, general appearance and evidence of care being taken into consideration in making the award. This competition is open to all residents of Massachusetts; owners of unusual specimens of American trees are invited to correspond with the secretary if further information is desired.

Survey of Trees in New England

During the past year an extensive survey of the trees of New England has been made by the Massachusetts Horticultural Society, and has brought to light much interesting information. Apparently the biggest and in some ways the most noteworthy Elm in New England, now that the famous Washington Elm in Cambridge has fallen, seems to be the Wethersfield Elm at Wethersfield, Ct. Although the exact age of this tree is not known, there is little doubt but that it was planted soon after the town was settled in 1634. This tree at its base is fifty-five feet six inches in circumference, and measures twenty-six feet four inches at a height of thirty-nine inches above the ground. It is one hundred and twenty-five feet high, and has a spread of one hundred and thirty-seven feet. Although very massive, it is not wholly typical of the American Elm, as it has six main branches, with twelve large limbs at a distance of twenty-five feet from the ground. The spreading branches themselves are as large as many trees, one of them having a circumference of seventeen feet.

The tree has interesting associations. Many prominent persons have found shelter beneath its branches, Washington and Lafayette among them. Charles Wesley, the great reformer, delivered a sermon while standing under this tree, when he made a tour of the colonies in 1750.

The tree is valued so highly in Wethersfield that the town has appropriated a liberal sum of money to preserve it for future generations. Within the past few years nearly six cords of wood in the form of broken or decayed limbs have been cut away.

Another very notable New England tree which the Society's survey shows to be in good condition is the Avery Oak at Dedham. This tree, which stands eighty feet high and has a spread of eighty-three feet, is especially interesting because it is the original tree on the town seal of Dedham. This tree is being kept in good condition by the Historical Society.

The survey shows that there is a second Washington Elm

The Historic Old Elm Tree at Wethersfield, Conn.

in Massachusetts. This tree stands at Palmer, and Washington is supposed to have stood under it while speaking to the residents of the town during the Revolutionary War.

New England is found to abound in magnificent Elms, many of which are still in good condition, less damage having been done by the Elm-tree beetle than had been feared a few years ago, when beetle damage was heavy.

An unusually large number of remarkable Elm trees have been found at Wayland, Mass. There are also many good specimens in Lancaster, although some of the most beautiful trees in that town have died.

The tallest tree in New England, so far as the Society has found, is a huge American Elm at Conway, N. H., which towers one hundred and fifteen feet into the air. Hatfield, Mass., however, has an Elm with much larger lateral dimensions, measuring one hundred and seventy-five feet from the tips of the branches on one side straight through to the tips of the branches on the other.

The Society has a record of a great Buttonwood tree in Hartford, Conn., which is declared to be 331 years old, although absolute data has not been obtained.

Probably the most historic Elm tree in the vicinity of Boston, now that the Washington Elm is gone, is the Cushing Elm at Hingham, under which the Rev. John Brown, of Cohasset, delivered an eloquent sermon to a company of English soldiers in the Revolutionary War.

Notable evergreen trees do not appear to be very numerous in New England, but there is a Hemlock on the property of Mrs. Sarah Blanchard at Wilmington, Mass., eighty-five feet high, with a spread of sixty-five feet, which is believed to be the largest in the state.

Danvers has a tree in the Preston White Pine which is ninety-five feet high, while the Dr. Kane White Pine at Brattleboro, Vt., has a spread of a hundred feet.

Among the most interesting fruit trees which appear in the survey is the Governor Endicott Pear tree in Danvers, which was planted about 1630, and which is now owned by Mr. William C. Endicott, a Trustee of the Massachusetts Horticultural Society.

Another very old fruit tree is known as the Orange Pear tree, and stands in the garden of Capt. C. H. Allen, in Salem.

Courtesy of the Arnold Arboretum

The Avery Oak at Dedham, Mass.

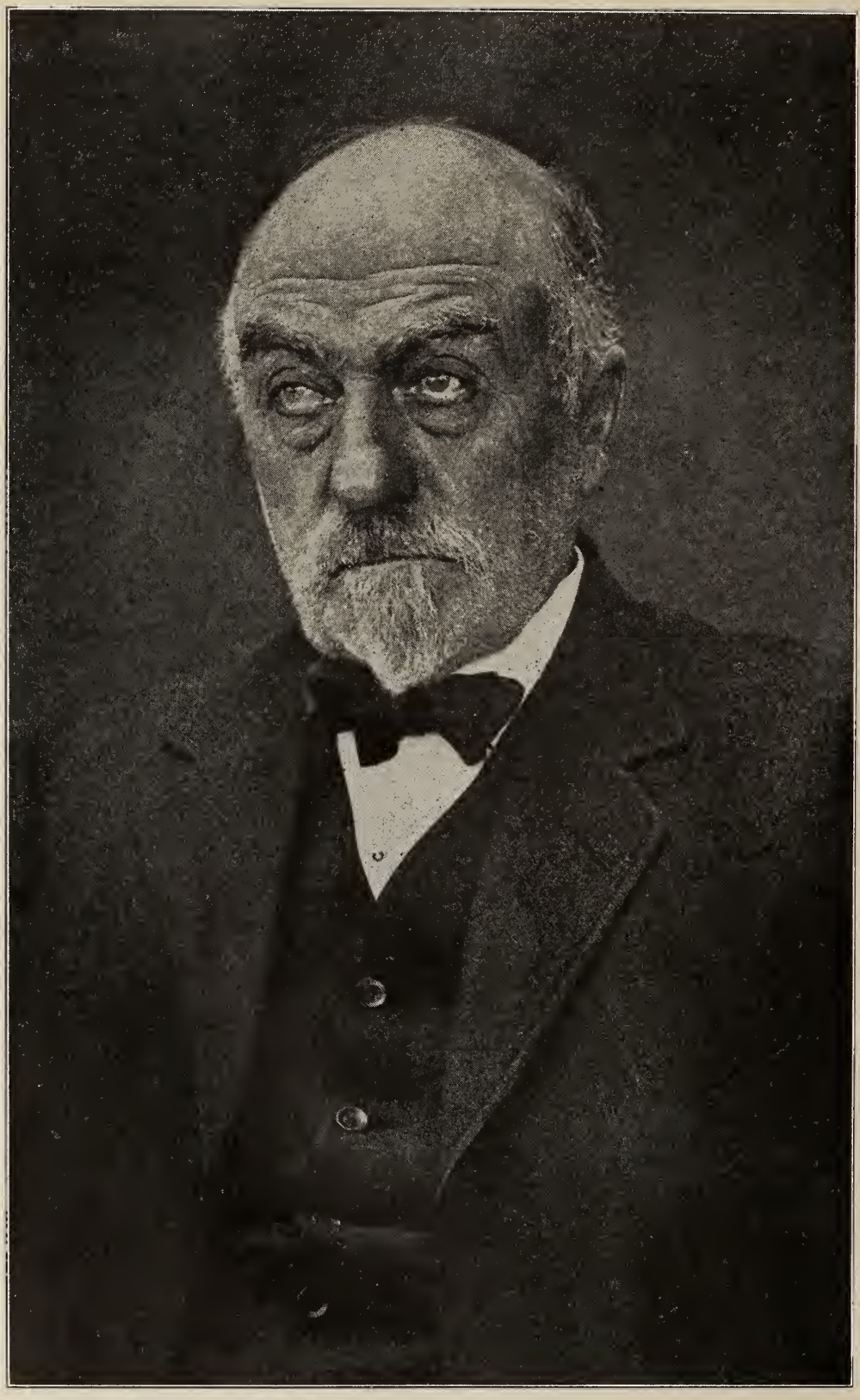
This tree, which still bears fruit, was brought over from England in 1639, according to what seems to be authentic records. Unfortunately, the tree needs immediate attention if it is to be saved.

A great many other trees have been reported upon, and many pictures have been collected by the Society, and are on exhibition at Horticultural Hall.

Important Trees of New England

Town and State (in Mass., when not stated otherwise.)	Kind of Tree	Height (in ft.)	Spread (in ft.)	Age (in yrs.)	Location
Amherst, N. H.	American Elm	78	80		Dr. M. Spalding Estate
Brattleboro, Vt.	"Dr. Kane" White Pine	75	100		Opp. Pratt Farm. In poor condition
Charlemont	Rice Buttonwood	105	86		Nearly opp. Fitchburg R. R. Station
Conway, N. H.	Elm	115	85		On farm, S. C. Hill
Cornwall, Conn.	Elm	80			On farm, T. S. Gold
Dedham	"Avery" Oak	80	83		Original of tree on Town Seal, East Street, on land, Deacon Avery
Danvers	Governor Endicott Pear Tree	18	17	294	Endicott Street, Danversport
Framingham	Rugg Elm	70	145		Near Country Club
Grafton	The Grafton Oak	62	75		Near Town Square
Hingham	Cushing American Elm	72	110		Deacon Ned Cushing Estate, East Street
Lancaster	"Carter" Red Oak	82			Foot eastern slope, George's Hill
Pittsfield	The Oliver Wendell Holmes Pine	97	90		On old road to Lenox

Lexington	The Harrington Elm	70	90	192	In front of the L. A. Austin home
Lunenburg	"King Arthur" White Oak	75	90		On country road near town
Marlboro	The Marlboro Elm	75	100	200	On Stevens Estate
Middleton	White Oak	80	87		Before J. A. Curtis' house, near Thomas sawmill
Norwich, Conn.	"Coit" Elms			136	Three trees stand in front of Coit mansion
Palmer	Washington Elm	55	95	175	Near railroad bridge
Plymouth	European Linden	75	50		On land of T. A. Hathaway, North Street
Salem	"Allen" Orange Pear			250	In Capt. C. H. Allen's garden, Hardy Street
Saugus	The Roby Elm	100	100	154	On Main Street
Sheffield	Sheffield Elm	82	100	225	Beside highway near town
Stow	Assabet Oak	100	100		On Randall Estate
Sunderland	"Buttonwood"	110	95		Near Elias Leach homestead
Waterbury, Vt.	White Birch	77	62		At highest point on road, through a gorge between Waterbury and Middlesex
Ware	Lafayette Elm	65	110	175	On Palmer Road
Williamstown	American Elm	64	111	150	Near the border of Williamstown and Hancock
Wilmington	Hemlock	70	80	250	On old Jaquith farm
Yarmouth, Me.	American Elm		150	130	Near old Stockbridge house



Mr. John McLaren

To whom the George Robert White Medal of Honor has been awarded

John McLaren

The announcement was made at the close of 1923 that the award of the George Robert White Medal of Honor for that year had been made to Mr. John McLaren, superintendent of Golden Gate Park, San Francisco, California.

A biography of Superintendent John McLaren or a history of Golden Gate Park—in but a few minor details could they differ. John McLaren has been more than a superintendent. As a landscape architect he saw the opportunity to make one masterpiece his life work, and that is the Golden Gate Park of today, famous among the playgrounds of the world.

In 1887, when Superintendent McLaren took charge of the park, it was little more than a waste of wind-blown sand dunes. Thirty-six years of intelligent planning and unremitting industry have realized a vision.

John McLaren was born near Stirling, Scotland, on December 20, 1846, the year in which the Bear Flag was raised at Sonoma, with some thought of abandoning San Francisco as a settlement.

At the age of 17 young McLaren took up the study of landscape gardening. His first training school was the Scotch farm of his parents. After serving a long apprenticeship at the Edinburgh Botanical Garden he set out for California and came first to San Mateo, where he resided for a number of years, and planted the large eucalyptus and pines now growing along the highway and in private grounds. There he met and married a daughter of the heather, the present Mrs. McLaren.

McLaren, upon taking charge of the park, found himself in possession of a newly-planted strip of land, the Panhandle, a conservatory and many acres of sand. There were no lakes and few would have considered them a possibility.

The story of John McLaren's life and works since that time is written in a book that he who runs may read. The children's playground, the concert pavilion, Strawberry Hill with Stow Lake and Huntington Falls, the Chain of Lakes

and the flora of many lands are among its chapters. It is painted in colors that surpass any words of description.

It was John McLaren who performed much of the wizardry that caused the Marina to spring suddenly into beautiful gardens as a setting for the Panama-Pacific Exposition. Artists and architects found themselves dependent upon the man who worked with the secrets of Nature.

McLaren is both author and authority. His book, "Gardening in California; Landscape and Flower," is the best in its field.

Personality has taken the place of politics in the life of McLaren as a public official. His political activity has been in behalf of larger appropriations for Golden Gate Park.

John McLaren is regarded by San Franciscans in no less a capacity than "father of Golden Gate Park," architect of its crowning beauty.

History of the George Robert White Medal of Honor

America's Highest Horticultural Award

George Robert White of Boston presented to the Massachusetts Horticultural Society in 1909 a fund, now amounting to $10,000, the income to provide annually for a substantial gold medal to be awarded by the Trustees of the Society to the man or woman, commercial firm or institution in the United States or other countries that has done the most in recent years to advance interest in horticulture in its broadest sense. The medal, designed by John Flanagan, is of coin gold and weighs eight and a half ounces. It has been awarded each year since its establishment to the following persons:

1909. Prof. Charles S. Sargent, Director of the Arnold Arboretum, Jamaica Plain, Mass.

1910. Jackson Thornton Dawson, well known and accomplished plantsman of the Arnold Arboretum.

1911. Victor Lemoine of Nancy, France, originator of many of the popular varieties of flowering plants to be found in the gardens of today.

1912. Michael H. Walsh, Rose specialist of Woods Hole, Mass., originator of the Lady Gay Rambler Rose and many other popular varieties.

1913. The Park Commission of the City of Rochester, N. Y., in recognition of its tasteful work in landscape planting.

1914. Sir Harry James Veitch of London, England, seedsman, nurseryman and introducer and propagator of many desirable ornamental garden plants.

1915. Ernest Henry Wilson of Boston, for his botanical and horticultural work in China and Japan, and the discovery of many new varieties of flowering plants, shrubs and trees.

1916. William Robinson of London, England, for his educational work in horticultural literature.

1917. Niels Ebbesen Hansen of Brookings, S. D., for the introduction of new varieties of plants and fruits in the Northwestern States.

1918. Dr. Walter Van Fleet of Washington, D. C., for the production of new varieties of Roses.

1919. Vilmorin-Andrieux et Cie., Paris, France, for the introduction of new varieties of plants and vegetables.

1920. George Forrest of England, for his work in the introduction of garden plants from China.

1921. Mrs. Louisa Yeomans King of Alma, Mich., for her work in popularizing gardening.

1922. Albert C. Burrage of Boston, for advancing the interest in horticulture.

1923. John McLaren of San Francisco, for his work in the development of horticulture on the Pacific Coast.

Chinese Lilies

Species for Which Mrs. Bayard Thayer Was Given a Gold Medal

The gold medal of the Massachusetts Horticultural Society was awarded September, 1923 to Mrs. Bayard Thayer of Lancaster, Mass., for her work in preserving and popularizing the newer Chinese Lilies. Mrs. Thayer's interest in these Lilies has extended over the time which has been necessary to develop one of the finest collections in America. She was the first estate owner to recognize the value of such species as Lilium regale, Lilium Thayerae, Lilium Sargentiae, and Lilium Willmottiae. With the exception of Lilium regale this group of Lilies has been lost from most of the gardens in which bulbs were planted. Mrs. Thayer encouraged her skillful superintendent, William Anderson, to give these Lilies special care and attention, the result being that they have been saved for American gardens.

Special interest has been shown in the Lily which was named by Mr. E. H. Wilson, the introducer for Mrs. Thayer. This Lily was given special mention in the award by the Massachusetts Horticultural Society. Lilium Thayerae is a native of the Chino-Thibetan borderland, growing in a wild and mountainous country at an altitude of 5000 feet or more. It is occasionally cultivated in gardens. Mr. Wilson in his description of the Lily says:

"It is occasionally cultivated in gardens and on tops of stone and mud walls for its bulb, which being white is esteemed as a vegetable. In the Min Valley I have seen occasional plants above the city of Maochou to Sungpan Ting. Also it grows in the valley of the upper Tung River round the town of Romi-chango. In Shensi it appears to be rare. It was first introduced to Italy by Pere Giraldi, who in 1894 sent bulbs which flowered in the Botanic Gardens, Florence, in June, 1895. In 1904 I sent bulbs to Messrs.

Lilium Thayerae

Veitch, by whom it was distributed under the name of 'L. sutchuenense.'

"In the winter of 1908-09, and again in 1910-11, I sent bulbs to the Arnold Arboretum which were distributed in America and England. This Lily grows among low shrubs and grasses in open country, especially on steep mountain-slopes, and is happiest on humus-clad boulders. It is fond of leaf soil, good drainage and sunshine, and flowers in July. Under cultivation it has proved reasonable, ripens seed in

normal seasons, and is now fairly well established in a number of gardens in England and a few in America.''

Lilium Willmottiae grows wild over a considerable area in central China but is nowhere common. It inhabits the margins of thickets and woods in well-drained situations where loam and an abundance of decaying leaves obtain. The slender stem is not sufficiently strong to support the weight of the pyramidate inflorescence, and the bushes among which the plants grow assist in keeping the stem upright.

The bulb is small, and it is surprising that it should be capable of producing such a number of flowers even though the plant is stem-rooting. The Chinese cook and eat the bulb even as they do that of every other species of Lilium that has a white bulb.

This lily was discovered in 1888 in western Hupeh by A. Henry. In the winter of 1908-09, Wilson sent a small consignment of bulbs to the Arnold Arboretum. Some of these bulbs were presented to Miss Willmott, Mrs. Bayard Thayer, and other friends of the Arboretum.

In habit and shape of its flowers this Lily closes resembles that named for Mrs. Thayer, but its stem is less rigid, the leaves more lustrous, and the flowers, dotted with black, are larger and of a rich shade of apricot not easy to define.

The Henry Sargent Hunnewell Garden

In November, 1923, the Massachusetts Horticultural Society voted the Society's Gold Medal to Mr. and Mrs. Henry Sargent Hunnewell, of Natick, on recommendation of the Garden Committee. This committee, consisting of William C. Endicott, Mrs. F. B. Crowninshield, and Mrs. Bayard Thayer, report that the garden is of unusual interest and excellence. It was brought into prominence last spring when visited by the members of the American Rose Society on their annual pilgrimage.

In 1890 the late Charles Eliot, son of Charles William Eliot, President Emeritus of Harvard College, drew plans for the ornamental part of the Hunnewell estate. The house was designed and built by Mr. Hunnewell himself, a well-known architect, and was first occupied in 1891. The Cedars consists of about 400 acres, a large part of which is woodland, and is a very beautiful place, particularly so from the fact that there is little that is artificial about it.

Few trees have been planted, but the work done by Mr. Hunnewell consisted in cutting down a part of the forest trees to produce a more park-like effect, and in substituting in their place conifers and ornamental shrubs, of which there are many remarkable specimens, particularly Taxus cuspidata, Rhododendron maximum, Hollies and Azaleas. By cutting out trees long alleys give lovely views.

In 1915 the Rose Garden was laid out under the direction of Mrs. Harriet R. Foote of Marblehead. While this garden is not very large, it is very perfect of its kind. The standards are unusually fine and the different varieties of Roses are many and well chosen.

Library Accessions

New books added to the Library during the year 1923 include the following:

American rose annual, 1923.
Anderson, O. G., and Roth, F. C. Insecticides and fungicides.
Arnold, Augusta Foote. The sea-beach at ebb-tide.
Bahr, Fritz. Fritz Bahr's Commercial floriculture.
Bailey, L. H. Plant-breeding. New edition, revised by Arthur W. Gilbert.
Bailey, L. H., editor. The cultivated evergreens.
Baker, William M. Forestry for profit.
Barnes, Parker T. House plants and how to grow them.
Barron, Leonard. Lawn making.
Brown, Clark W. Gladiolus nomenclature.
Champe, R. M. The gladiolus for profit.
Cockerham, K. L. A manual for spraying.
Davis, K. C. Horticulture; a text book for high schools and normals.
Duryea, Minga Pope. Gardens in and about town.
Eley, Charles. Gardening for the twentieth century.
Graton, Louis. Intensive strawberry culture.
Harding, Mrs. Edward. Peonies for the little garden. (French Fund.)
Hardy, M. E. The geography of plants.
Hedrick, U. P., and others. The pears of New York.
Hilborn, Ernest. The amateur's guide to landscape gardening.
Hottes, Alfred C. A little book of annuals.
Hottes, Alfred C. A little book of perennials.
Hottes, Alfred C. Practical plant propagation.
Kains, M. G. Plant propagation; greenhouse and nursery practice.
Kew. Royal botanic gardens. Bulletin of miscellaneous information, 1922.
King, Mrs. Francis. The little garden.
King, Mrs. Francis. Variety in the little garden.
Lyman, Florence Van Fleet. Old-fashioned songs of a house and garden.
McFarland, J. Horace. The rose in America.
Macself, A. J. Alpine plants.
Macself, A. J. Delphiniums and how to excel with them.

Macself, A. J. Hardy perennials.
Macwatt, John. The Primulas of Europe.
Maxwell, Sir Herbert. Flowers; a garden note book, with suggestions for growing the choicest kinds.
Methuen, A. An alpine a b c.
Mitchell, Sydney B. Gardening in California.
Morris, Robert. Nut growing.
National rose society. The rose annual for 1922.
Nuttall, G. Clarke. Beautiful flowering shrubs.
Outram, James. In the heart of the Canadian Rockies.
Payne, C. Harman. The history and later history of the chrysanthemum.
Peck, Charles Lathrop. The school book of forestry.
Peck, Charles Lathrop. Trees as good citizens.
Peets, Elbert. Practical tree repair.
Piper, C. V., and Oakley, R. A. Turf for golf courses.
Pyle, Robert. How to grow roses.
Ridgway, Robert. Color standards and color nomenclature.
Rockwell, F. F. Gardening under glass.
Rohde, Eleanour Sinclair. The old English herbals.
Ruffo, Gioacchino. Le palmi di Villa Lucia.
Schultz, Ellen D. 500 wild flowers of San Antonio and vicinity.
Silva-Tarouca, Ernst, and Schneider, Camillo. Unsere Freilandstauden.
Simmons, James Raymond. The historic trees of Massachusetts.
Stager, Walter. Tall bearded iris.
Standardized plant names.
Tabor, Grace. Making the grounds attractive with shrubbery.
Tansley, A. G. Practical plant ecology.
Thompson, Homer C. Vegetable crops.
Tilton, George H. The fern lover's companion.
Townsend, Charles Wendell. Sand dunes and salt marshes.
Trelease, William. Plant materials of decorative gardening.
Unwin, W. J. The sweet pea and its culture.
Waugh, Frank A. Dwarf fruit trees; their propagation, pruning, and general management.
Waugh, Frank A. Textbook of landscape gardening.
Weaver, John E. The ecological relations of roots.
White, Edward A. The principles of floriculture.
White, Edward A. Principles of flower arrangement.
Wright, Richardson. Flowers for cutting and decoration.
Wright, Richardson, editor. House and garden's Book of gardens.

Current Periodicals

The following periodicals from many parts of the world will be found in the Library of the Massachusetts Horticultural Society:

Agricultural Gazette of Canada
Agricultural Gazette of New South Wales
American Botanist
American Fern Journal
American Florist
American Forestry
American Naturalist
American Nut Journal
Anales de la Sociedad Rural Argentina
Annales de la Société horticole, vigneronne et forestière de l'Aube
Annals of Botany
Annals of the Missouri Botanical Garden
Arnold Arboretum. Bulletin of Popular Information
Brooklyn Botanic Garden Leaflets
Brooklyn Botanic Garden Record
Bryologist
Bulletin de la Société d'Horticulture d'Orléans et du Loiret
Bulletin de la Société d'Horticulture et de Viticulture d'Épernay
Bulletin mensuel de la Société d'Horticulture, de Viticulture et d'Études agronomiques du Puy-de-Dôme
Bulletin of the American Dahlia Society
Bulletin of the Garden Club of America
Bulletin of the New York Botanical Garden
Bulletin of the Torrey Botanical Club
Bullettino della R. Societa Toscana di Orticultura
California Garden
Canadian Entomologist
Canadian Field Naturalist
Canadian Florist
Canadian Horticulturist
Cornell Countryman
Country Gentleman
Country Life
Curtis's Botanical Magazine
Deutsche Obst-u. Gemüsebau-Zeitung

Ecology
Experiment Station Record
Farm and Garden
Farm and Home
Farm Journal
Florists' Exchange
Flower Grower
Flowering Plants of South Africa
Forest Leaves
Fruit Belt
Fruit World of Australasia
Garden
Garden Life
Garden Magazine
Gardeners' Chronicle
Gardeners' Chronicle of America
Gardening
Gardening Illustrated
Gartenflora
Gartenkunst
Gartenschönheit
Gartenwelt
Geisenheimer Mitteilungen
Guide to Nature
Horticulteur Chalonnaise
Horticulture
Horticulture Française
House Beautiful
House and Garden
Institute of Agriculture, Rome:
    International Crop Report
    International Review of Agricultural Economics
    International Review of the Science and Practice of Agriculture
Ireland. Department of Agriculture and Technical Instruction:
    Journal
Jardinage
Journal de la Société d'Horticulture de France
Journal d'Horticulture suisse
Journal of Agricultural Research
Journal of Botany
Journal of Economic Entomology
Journal of Forestry
Journal of Pomology and Horticultural Science
Journal of the Anold Arboretum

Journal of the Department of Agriculture of Victoria
Journal of the Elisha Mitchell Scientific Society
Journal of the Japanese Horticultural Society
Journal of the Minister of Agriculture
Journal of the Royal Horticultural Society
Landscape Architecture
Lyon Horticole et Horticulture Nouvelle
Minnesota Horticulturist
Möller's Deutsche Gärtner-Zeitung
Monthly Bulletin of the Department of Agriculture, State of California
Mycologia
National Nurseryman
Nature Magazine
New England Homestead
New Zealand Journal of Agriculture
Nord Horticole
Orchid Review
Pomologie Française
Quarterly Journal of Forestry
Revue des Eaux et Forêts
Revue Horticole
Rhodora
Rural New Yorker
Seed World
South African Gardening and Country Life
Southern Florist
Torreya
Union of South Africa. Journal of the Department of Agriculture
Wisconsin Horticulture
Zeitschrift fur Obst-, Wein- und Gartenbau
Zeitschrift fur Pflanzenkrankheiten und Gallenkunde

The Best Uses of Fruit and Fruit Varieties*

When conditions favorable for growth and fruit bearing surround the tree one may expect to be rewarded with an excellent crop of fruit. Then questions arise concerning the harvesting and subsequent handling of the fruit and its best uses in the home and family. It is with these problems that we propose to deal briefly this afternoon.

In discussing these problems we shall have the apple in mind, though much that will be said applies also to other fruits and we may mention other fruits specifically from time to time.

Several criteria for the time of harvest have been proposed. One is the color of the seeds in apples and pears. It is not very valuable because we may not want to destroy the fruit and more especially because it is not very reliable. With some varieties the seeds color before the flesh is really ripened and with others not until afterward. Yet it is not without value and may be noted with profit.

The character most frequently observed as a mark of ripeness is color. When an apple is red we say it is ripe. And to a less degree this applies to certain other fruits. Now the red color is a so-called sap color, and is developed by sunlight as soon as the fruit has developed to a certain stage and may or may not mark the proper time for harvesting. It does in a rough way especially with winter apples but it is not the best criterion.

All fruits are in their immature stages some shade of green, varying with the type and variety. One of the best indications of time of harvest, especially with early fruits that are intended for early consumption, is the change of this green color to some shade of yellow. It may be a little difficult with highly colored apples to tell when this yellowing begins, but usually on the shady side of the fruit it shows through enough

* A lecture delivered at Horticultural Hall, Boston, Nov. 3, 1923, by Prof. J. K. Shaw of the Massachusetts State College of Agriculture.

to see. Winter fruit may be necessarily gathered before this yellowing begins.

Excepting winter apples and pears probably the best indication of the proper time of harvest is the softening of the fruit and the development of the flavor characteristic of the variety. When this change appears the decay of the fruit soon follows. I do not mean by this the soft rots, but the physiological breakdown accompanied by the loss of flavor. Soft rots are caused by certain organisms that rarely gain access to the fruit except through a break in the skin. Hence the importance of protecting the fruit from insects and diseases and of careful handling to avoid breaking the skin. The importance of the last can hardly be over-estimated if one wishes to keep fruits as long as possible.

STORAGE OF FRUIT

When the fruit is harvested the next question that arises is that of the best condition of storage. With apples that are to be kept as long as possible one should put them as soon as possible in a temperature as near freezing as practicable. Apples freeze at a temperature of about 28 or 29 degrees Fahrenheit. As it is impossible to control the temperature of a storage room exactly, it is the common practice to keep storage rooms under artificial refrigeration around 32 degrees. This allows a margin of safety of about 4 degrees. It is a question if apples kept at this low temperature before becoming fully ripe ever attain as high quality as those held at a higher temperature, say around 40 to 45 degrees. Probably the latter temperature is better for winter fruit, sound and whole, except where it is desired to hold the fruit as long as possible. Apples may not be harmed seriously by freezing provided they do not fall below about 25 degrees and are allowed to thaw gradually and without being disturbed. Repeated freezing and thawing however may be harmful.

Another condition essential to holding fruit in the best condition is a reasonable amount of humidity of the atmosphere of the storage room. If the air is too dry the fruit will shrivel, especially russet varieties, and if it is too moist, molds and mildews are apt to develop.

It is unfortunate that modern dwellings do not afford a place favorable for keeping fruit. A cellar with a furnace

is too warm. Wherever possible a cellar ought to have a room insulated by walls and ceilings filled with shavings or in some other manner and with provision for admitting outside air when it is cold and shutting it out when it is warm. Dwellers in flats and apartments are compelled to purchase fruit in small quantities for immediate consumption.

Almost all fruits may absorb bad odors when kept where such are present. Some varieties are more likely than others to do this. Comparatively little is known about this but they should be avoided as far as possible.

Apples in storage are subject to certain diseases. The most serious of these is apple scald. This develops only in green varieties or on the uncolored cheek of those that are more or less red. Its development is favored by picking the apples too soon and by confining them closely as in a tight package or practically air tight cold storage rooms. It is not apt to be serious where apples are allowed to mature well on the trees and kept in small open packages in a cool house cellar. Recent investigations have shown that it can be entirely prevented by wrapping each apple in paper that has been treated with certain oils. Such paper is on the market and is used quite extensively especially by Pacific Coast growers.

The so-called Baldwin spot, a physiological disease affecting Baldwins and some other varieties sometimes develops in storage, though probably in all cases the trouble starts before the fruit is picked. No effective remedy is known.

Occasionally the apple scab develops in storage. This is seen only on varieties naturally susceptible to the disease and is doubtless present though not noticeable when the fruit is picked. The remedy is thorough spraying in the orchard.

THE BEST VARIETIES

Preference of certain varieties over others is largely a personal affair. One person likes a certain variety or type of fruit and another prefers something else. Some of these likes and dislikes are well founded and others are mere notions that would yield to further real knowledge of varieties. There exists an idea that eastern apples are better in quality but not as attractive in appearance as those from the Pacific Coast. This may be true in a general way, but of course it does not hold in all cases. There are remarkably

handsome apples grown in the east and some western apples are of high quality. The principal reason for the reputed poor quality of western fruit is because it is often over-ripe before it gets into the consumer's hands. In order to get high color it is allowed to hang to the tree until it is well ripened and with the long journey and divers sorts of handling it is past its prime when it comes to the consumer.

Boston and Massachusetts generally is noted for its preference for red varieties. Green or yellow apples do not find a ready market here. Yet there is no reason why a red variety should be better than one of some other color. But it is perhaps not worth while to attempt to overcome this notion. If Boston insists on having red apples the grower will try to meet the requirement.

Nor is there any real reason why a yellow fleshed peach should be any better than a white fleshed one. It may be more pleasing to the eye. The white fleshed varieties as a class are hardier in bud than the yellow varieties and for this reason the grower prefers them. If they sold as well probably the Massachusetts peach grower would produce few yellow varieties.

Flower Exhibitions to Be Held at Horticultural Hall in 1924

March 27—30. Exhibition of Spring Bulbs and Flowers.

May 8—11. Orchid Exhibition given by the American Orchid Society.

June 7—8. Rhododendron, Azalea and Iris Exhibition.

June 21—22. Peony Exhibition.

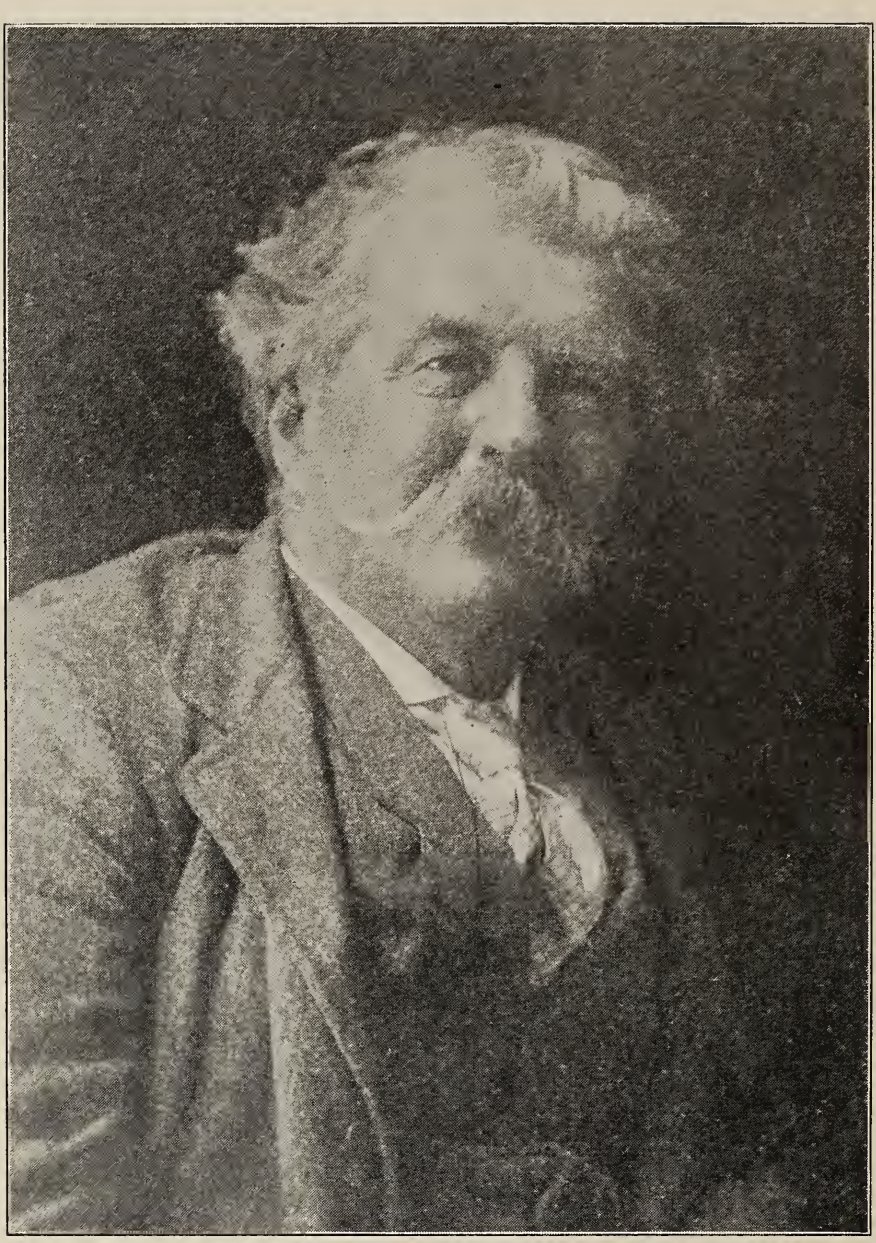
June 28—29. Rose, Strawberry and Sweet Pea Exhibition.

August 15—17. Gladiolus Exhibition. In conjunction with the annual exhibition of the New England Gladiolus Society.

August 30—31. Exhibition of the products of Children's Gardens.

Sept. 13—14. Dahlia Exhibition. In conjunction with the annual exhibition of the New England Dahlia Society.

Oct. 24—26. Autumn Exhibition of plants, Flowers, Fruits and Vegetables.



THE LATE JACKSON T. DAWSON

Memorial to Jackson Dawson

A movement has been started to create a memorial of some kind to the late Jackson T. Dawson, for many years superintendent of the Arnold Arboretum, and one of the country's most noted horticulturists. The memorial committee consists of Thomas Roland, Nahant, Mass.; F. R. Pierson, Tarrytown, N. Y.; W. A. Manda, South Orange, N. J.; S. J. Goddard, Framingham, Mass.; Fred A. Wilson, Nahant, Mass.; Ernest H. Wilson, Arnold Arboretum.

This committee has issued the following notice, which is being widely distributed:

"The memory of Jackson Thornton Dawson deserves perpetuation before those who knew and loved him are replaced by others who will not have the stimulus of personal recollection. Jackson Dawson was a great man in horticulture, a foremost propagator of woody plants in our country and a pioneer in the field of hybridization of woody plants; a welcome companion and visitor among us; and possessed of a personality which was impressive, and which we should be glad to recognize in some form of permanent memorial. For this purpose a committee has been organized and the wishes of the present generation, who knew Jackson Dawson, can be realized.

"The tribute will take the form of a fund placed with the trustees of the Massachusetts Horticultural Society; the interest to be used for prizes, lectures and medals, or, as the trustees may direct, to commend and encourage the science and practice of hybridization and propagation of hard-wooded plants. It was in this field that Jackson Dawson excelled, and it is here that he would choose to see encouragement given.

"We invite all who appreciated the man and his great work to subscribe to this memorial."

Checks should be made out to "The Jackson T. Dawson Memorial," and forwarded to Thomas Roland, Treasurer, Nahant, Mass.

Propagation of Trees and Shrubs From Seed*

The raising of trees from seed is the natural way of propagating them. Nature shows us that, and employs many agents to carry out her designs. In the first place, seeds drop from the trees to the ground and are covered by the falling leaves, or by the grass and weeds, which keep them from the drying winds until they germinate. They are scattered by the winds, and many fall in the crevices of rocks, and on good ground, or other favorable situations; they are floated down rivers and brooks and are left in the rich mud along the banks. They are carried many miles from their original station by the birds; and the larger seeds, such as acorns and nuts, are carried away by squirrels, mice, and other animals, and buried for future use as food, and a great many of these germinate. I think that for many rows of fine oaks and hickories along the boundary walls of old farms we are indebted to the planting of the squirrels. While we can learn much from nature, we can also improve upon her methods, and supply ourselves with trees in a more economical way. It is true, if nature is left to herself, and men stop destroying, she will soon cover up the ruins made by man, for she sows with a liberal hand; but there are so many enemies at work, and so many conditions to take into consideration, that only a small percentage of the seed that drops to the ground germinates; possibly not one in a thousand comes to maturity. For this reason we cannot afford to raise our forests as nature shows us.

The sowing of tree seed where the trees are to remain is poor economy, and should not be undertaken except where it is impossible to plant; such sowing should be the exception, not the rule. A much greater quantity of seed is required; it necessitates more labor; more spots have to be replanted, and it is not generally satisfactory in its results. The soil and

* A paper by the late Jackson T. Dawson reprinted from the Transactions of the Massachusetts Horticultural Society for 1885.

situation are so varied that the seed cannot be properly cared for, as it can be in the compact form of frames, seed beds, or nursery rows, where they can be protected from insects or inclement weather.

The first consideration in seed-sowing is to determine what you want to plant; the second, to procure your seed as fresh as possible; the third, to prepare a suitable soil and situation to plant them in; the fourth, to know what depth to cover them and how long to wait for the seed to come up. It would be impossible for me at this time to go through the whole list of trees and shrubs that will well stand the climate of New England; therefore I will confine myself to those that are most useful. Except in a few cases given for the sake of illustration, those named in the following list are all hardy in the vicinity of Boston, and are representatives of most of the families of trees that will stand our climate:—

Acer rubrum,	Red Maple,
" *saccharinum,*	White "
" *saccharum,*	Sugar "
" *platanoides,*	Norway "
Æsculus Hippocastanum,	Horse Chestnut,
Ailanthus altissima	Tree of Heaven,
Alnus glutinosa,	European Alder,
Amelanchier canadensis and others,	Shad-bush,
Betula papyracea,	Paper Birch,
" *lenta,*	Black or Cherry Birch,
" *nigra,*	Red or River "
" *alba,*	English White "
Carpinus caroliniana,	Hornbeam,
" *japonica,*	Japanese Hornbeam,
Carya alba,	Shell-bark Hickory,
" *sulcata,*	Western Shell-bark Hickory,
" *porcina,*	Pig-nut,
" *amara,*	Bitter-nut,
Castanea pumila,	Chinquapin,
Catalpa bignonioides,	Catalpa,
" *speciosa,*	Western Catalpa,
Celtis occidentalis,	Nettle tree or Hackberry,

Cercis canadensis,	Judas tree,
Cladrastis tinctoria,	Yellow-wood,
Cornus florida,	Flowering Dogwood,
Cratægus crus-galli,	Cockspur Thorn,
" *tomentosa,*	Black or Pear Thorn,
Cercidiphyllum japonicum,	Katsura
Diospyros virginiana,	Persimmon,
Fagus grandifolia,	American Beech,
" *sylvatica,*	English "
Fraxinus americana,	White Ash,
" *pubescens,*	Downy "
" *sambucifolia,*	Water "
" *excelsior,*	English "
Gleditsia triacanthos,	Three-thorned Acacia,
Gymnocladus dioica,	Kentucky Coffee tree,
Ilex opaca,	American Holly,
Juglans cinerea,	Butternut,
" *nigra,*	Black Walnut,
Kalmia latifolia,	Mountain Laurel,
Liriodendron Tulipifera,	Tulip tree,
Magnolia acuminata,	Cucumber tree,
" *cordata,*	Yellow Cucumber tree,
" *tripetala,*	Umbrella tree,
Morus rubra,	Red Mulberry,
" *alba,*	White "
Nyssa multiflora,	Tupelo, or Sour Gum,
Ostrya virginica,	Hop-Hornbeam,
Platanus occidentalis,	Button-ball tree,
Populus balsamifera,	Balm of Gilead,
Phellodendron amurense,	Amoor Cork tree,
Prunus serotina,	Wild Black Cherry,
Quercus alba,	White Oak,
" *bicolor,*	Swamp White Oak,
" *palustris,*	Pin Oak,
" *rubra,*	Red "
" *coccinea,*	Scarlet Oak,
Rhododendron maximum,	Great Laurel,
Robinia Pseudacacia,	Locust,
Salix alba,	White Willow,
Sassafras officinale,	Sassafras,
Sorbus americana	American Mountain Ash,

Tilia glabra,	Basswood,
" *vulgaris,*	Linden,
Ulmus americana,	White Elm,
" *racemosa,*	Corky "
" *procera,*	English "
" *glabra,*	Scotch "
Viburnum lentago,	Nannyberry,
Taxus canadensis,	Ground Hemlock,
Ginkgo biloba,	Maiden-hair tree,
Larix decidua,	European Larch,
Juniperus virginiana,	Red Cedar,
Thuja occidentalis,	American Arbor Vitæ,
Abies concolor,	Rocky Mountain Silver Fir,
" *homolepis,*	Japanese Silver Fir,
Tsuga canadensis,	Hemlock,
Pseudotsuga taxifolia,	Douglas Fir,
Picea mariana,	Black Spruce,
" *glauca,*	White "
" *omorika,*	Serbian "
" *pungens,*	Colorado "
" *Abies,*	Norway "
Pinus Strobus,	White Pine,
" *resinosa,*	Red "
" *rigida,*	Pitch "
" *sylvestris,*	Scotch "
" *nigra,*	Austrian "

As you perceive, the majority of this list are American trees. I know there are many foreign trees that will do well in New England, but, without being partial, I must say I believe that with few exceptions American trees are the best in the American climate, both for use and profit.

SOIL AND SITUATION

In selecting a place for the seed beds the soil for all large seeds should, if possible, be a deep, rich, mellow loam, avoiding, if possible, all thin, gravelly soils or heavy clays. The soil should be well manured with good, rotten manure, one year old, and ploughed or trenched from twelve to fifteen

inches deep, and well pulverized with a harrow. All coarse stones, quitch-grass, or other rubbish, should be raked off so as to have the land in the finest condition possible. If the land is full of weeds it would be well to manure heavily and plant one year with crops that would be well cultivated; or to plough it frequently during one season, so that it may be as clean as possible when the time comes for sowing.

If there is anything that tries one's patience, it is attempting to grow seedlings in a soil that is already full of weed seed. The land should be well sheltered from the north and west winds, either by a hedge or fence. If it is springy or low it should be well drained. If the seeds are to be sown in beds they should be laid out five feet wide, with an alley or pathway two and a half feet wide; this will give ample room to work the beds from both sides. The beds should be raked fine, and if to be sown broadcast they will then be ready for the seed.

A great many people prefer to sow broadcast; but I think that method requires more labor and care in weeding. I prefer to sow in rows nine inches apart across the bed,—especially if there are a large number of varieties, or only a limited number of plants are wanted,—or in long nursery rows eighteen inches apart if to be worked by hand, or from two and a half to three feet if to be cultivated by horse-power. The reason I prefer the short rows is that in beds so planted you can keep the soil well stirred between them, which you cannot well do when sown broadcast; they are also easier to shade and water, if necessary, than the long nursery rows, and in the fall they are much more easily protected.

SOWING THE SEED

The seeds should never be sown when the ground is wet, or when it is raining; the soil at the time of sowing should be neither wet nor dry, but in such condition that it can be raked without clogging. If sown when wet the soil is apt to bake hard, and a great many seeds will scarcely come through, while, on the other hand, if the soil is too dry the seed is apt to work out unless covered deeper than is desirable.

A supply of water should always be at hand ready to use

during dry weather on all light-rooted plants; but for large, deep-rooted plants this is unnecessary, except in protracted droughts. It is also well to have a number of light lath screens to shelter the most delicate plants from the hot sun. Having the ground well prepared, and all else necessary, we can begin sowing as soon as we can get the seed. If in the fall, we begin with the oaks, as acorns do not long retain their vitality, out of the ground. Neither does the seed of horse chestnut, chinquapin, hickory, or beech. To insure good success these must all be planted, or put in boxes of earth, as soon as possible.

If sown broadcast the nuts should be scattered thinly and evenly over the bed, pressed down with a light wooden roller, or the back of a spade, and covered a little more than the diameter of the seed,—which would be nearly an inch for beech, chinquapin, and oak, and from one to two inches for hickory, black walnut, butternut, and horse chestnut. If the same seeds are sown in drills they should be from two to three inches deep, and from one to two inches apart in the row. If not pressed down they will need from half an inch to an inch more covering than those pressed down. Some prefer to make shallow drills with a plough and sow the nuts very thickly; this will give a great many more plants to a given space, but they will not be so strong.

The Maples, with the exception of *Acer rubrum* and *Acer saccharinum* (these two species ripen their fruit in May and June), should be sown as soon as possible after gathering, and, whether in drills or broadcast, should not be covered more than twice their diameter. If covered too deep they sprout and rot, not having strength enough to break through a great depth of soil. If maple seed is allowed to get thoroughly dry, and is kept so until spring, very few, if any, will come up until the second year; while, if sown as soon as gathered and subjected to a good freezing, the greater portion will come up the following spring; though a few may wait until the second year.

The Ash (Fraxinus) must also be sown as soon after gathering as possible, if wanted to come up the first year. The Carpinus (Hornbeam) and the Ostrya (Hop-Hornbeam), unless sown in the autumn, will not come up until the second year. The Nyssa (Tupelo), *Cornus florida, Amelanchier*

canadensis (Shad-bush), *Celtis occidentalis,* the viburnums and thorns, seldom come until the second year, although there are a few exceptions, as some varieties will come if exposed to freezing, while of others not a seed will germinate even if frozen. The plum, peach, apple, and pear never come up evenly the first year unless the seed has been frozen or kept in boxes of moist earth.

A great many roses will not come up the first year, even after having been frozen, although the seed of hybrids will, if frozen for a week or two, come up in less than a month. The Tulip Tree invariably takes two years, and, as the proportion of good seed is as one to ten, it should be sown very thickly to insure even an ordinary crop. I find a good plan, which saves much time and labor, is to take some good-sized boxes, and fill with seed and fine sand in alternate layers; burying the box in a well-sheltered place and leaving it there one season, lifting out the sand in the spring and sowing the seed thickly in rows, and covering lightly.

Such seeds as those of *Cercis canadensis Gleditsia triacanthos, Cladrastis tinctoria, and Gymnocladus dioica,* being very hard, should have boiling water poured over them, and then stand for twenty-four hours, when they may be passed through a sieve, the mesh of which corresponds to the size of the seeds to be operated upon. All those not passing through the sieve may be considered fit for sowing, while the rest should be treated to another hot bath until they have all swollen to the required size. If sown dry they will keep coming up a few at a time for a year or two.

The Ailanthus, Catalpa, Morus, Platanus, Birches, and Alders are best sown in spring, as soon as the ground is dry enough to work. The ground should be very fine, and, whether in beds, broadcast, or in drills, the seed should be very lightly covered; and if a slight screen or shade were used it would be of great benefit to the young seedlings until they had made the second or third rough leaf, when the shade could gradually be dispensed with.

The White and Scarlet Maple, the Elms, and *Betula nigra* ripen their seed in early summer, and should be sown in freshly prepared beds as soon as gathered. At this time of the year the weather is often quite warm and dry, therefore these summer-sown seeds should be carefully attended to as

regards watering, and possibly light shade should be given. Where a large amount is planted, and no screens are at hand, birch brush laid thinly over the bed is a great help. If well taken care of they will make plants from six to twelve inches high the same season. I would say, before going further, that my rule is always to cover seed sown out of doors in any ordinary loamy earth a little more than their own diameter, and if very light and sandy nearly twice as deep, but if the soil is a clay, as lightly as possible; and it makes no difference whether broadcast or in drills. I know there are a few trees whose seed will come up if covered quite deep, but they are exceptions, not the rule.

The Magnolia should not be sown out of doors in this climate before the 20th of May, as it does not do well if sown when the ground is cold. The Holly *(Ilex opaca)* is the slowest to germinate. Treated like other seeds, a few—say one in a thousand—will come up in the first year, a few hundreds the second year, and the remainder the third year. Such has been my experience. The Black Alder takes two years.

Such seeds as those of Magnolia, Rose, Mountain Ash, Cratægus, Celastrus, Evonymus, and Viburnum, which are inclosed in a fleshy pericarp or pulp, where space is of account, and also for convenience of sowing, I macerate in water at seventy or eighty degrees for one or two weeks, when they may be washed out and sown before they are thoroughly dry. This often helps germination, and more in the magnolia than any other plant I know. If the magnolia is sown when gathered, there is an oil in the pulp that surrounds the seed, which, as soon as it begins to rot, seems to penetrate the seed and make it rancid.

I have frequently noticed that of the seed of the magnolia, that was not washed clean, few germinated; the pulp, in rotting, so soured the soil that it became full of fungus, which damped off many of the young plants, necessitating their removal to fresh soil to save them; while of those washed and sown under the same circumstances all came up and grew well. Of course this may not occur in nature, where the seed is exposed to the air and weather, or eaten by the birds and voided; but I am speaking of artificial cultivation. When magnolia seed is to be sown out of doors in

New England it is best, after washing it out, to put it in pots or boxes of sand,—that is, in alternate layers of sand and seed,—and place it in a frame or cellar, where it does not freeze, until the time of sowing in May. This is a good way to keep seeds for which we may have no place prepared, or which may arrive in late fall or winter, when it is impossible to get them into the ground. Very often it is more convenient to put seeds away in this manner until spring, than to sow in the fall; but it will not answer for seeds which need frost.

When seeds are sown in the fall it is well, as soon as the ground is frozen, to cover the beds or rows with a light covering of hay, pine needles, or leaves; which will keep the ground from heaving, and the heavy spring rains from washing up the seeds. If closely looked after, the covering may be left on until the seed shows signs of germination, which, in the case of large nuts, will be in June, when it should be carefully removed; this will also save a great amount of weeding.

All seed beds and rows should be kept free from weeds and, except where sown broadcast, as soon as up the ground should be hoed or cultivated frequently; this causes the young plants to push with greater vigor, and makes them better able to withstand drought. If the weather becomes very warm and dry the beds or rows of young seedlings should be well watered once or twice a week,—not by a slight sprinkling on the surface, but by a good thorough soaking, wetting the ground six or eight inches in depth. After the 1st of September the waterings may be discontinued, to allow the plants to ripen up their growth.

At the approach of winter all young seedlings that were sown in drills will stand better if a plough is run between them throwing a furrow against the stems, so as to cover them several inches deep; this keeps the young plants from heaving with the frost, and also keeps the water and ice from settling around the young stems, which often causes great injury. Those sown broadcast should have a slight covering of hay or leaves, as soon as the ground is frozen, which is usually from the 25th of November to the 1st of December in this vicinity.

SECOND YEAR'S TREATMENT

About the first or second week in April the covering should be removed, the young trees carefully taken up, and the tap roots cut well back; the cuts should be clean and smooth, so they will quickly callous and send forth plenty of young fibres, which would take some time if the cuts were not smooth. If any of the tops are crooked they should be cut back to a good strong eye; this will cause them to make a straight leader.

When taking up the young trees, they should not be exposed to drying winds, or hot sun, even for a few minutes, but as soon as taken up they should be tied in bundles, and the roots well sprinkled with water, and covered with a mat, or piece of old bagging, and kept moist until they are planted. There is no doubt that a great many failures in tree planting could be traced to the drying up of the roots before planting, and it has often been a wonder to me how some trees grew at all, considering the treatment they received.

THE NURSERY

Having a good piece of land well prepared, either by trenching or ploughing, mark out rows three feet apart with a spade or plough; if with a plough go twice in a furrow, which will usually make the drills deep enough for trees one year old, and, if they are to remain only one year, one foot apart will do for the larger growing kinds, and six inches for the smaller ones; if to remain a longer period a much greater distance will be required.

In transplanting trees the roots should be well spread and the soil worked well in about them, and well firmed with the feet. Our seasons for planting are often so short that we have to plant in all kinds of weather, though it is best not to plant when the ground is wet, if it can be avoided. The best time is when the soil is dry enough to crumble easily; it can then be worked among the finest roots, even if there are a great many of them, by taking hold of the tree and giving it three or four good shakes as the soil is being spread around the root; but it is hard work to get it among the roots when it is wet and pasty. After planting, weeds should never be allowed to get a foothold in the nursery, but it should be

cultivated at least once every two weeks, and all weeds cut out with a hoe between the plants. This will help the tree to withstand a long drought much better than it otherwise would, and at no great cost.

At the end of the second year almost all deciduous trees, if for forest planting, will be as large as it is profitable to plant in large quantities. If wanted for ornamental purposes they will need to be transplanted at least every two or three years, and carefully pruned into proper shape until they have reached the desired size. If often transplanted they may be successfully removed when from fifteen to eighteen, or even twenty feet in height; though I believe that vigorous young trees, from one to three feet high, when set out where they are to remain, will make much finer specimens if soil, preparation, and care be equal.

The Conifers, such as Pine, Spruce, Larch, Cedar, and Hemlock require much more attention and care to grow from seed than any other class of trees, and many of the finest kinds it is impracticable to raise out of doors in our New England climate, though the common ones with care and attention may be raised quite successfully. The ground for these seeds should be a light, rich loam, deep and well pulverized, or, if not rich, made so with a good dressing of well-decomposed manure. The beds should be laid off five feet wide, and the alleys three feet. Along both sides of the beds, at intervals of five or six feet, drive a row of small posts that will rise six or eight inches above the surface of the beds. The beds should be a few inches higher than the paths, so that water will not stand on them.

The situation should be as sheltered as possible both from the mid-day sun and drying winds; the north or east side of a hedge or fence is a favorable position. The beds being all prepared and raked very fine, as soon as the weather becomes settled—say from the 10th to the 20th of May—the seed may be sown thinly, in rows six inches apart, across the beds, or broadcast, and slightly covered,—certainly not more than twice their own diameter. The sowing in rows is most convenient in working them, both in the way of keeping the beds clean and stirring the soil among the young plants. If sown broadcast they should be lightly raked in and the bed rolled with a light wooden roller. I would say here

that all seeds sown during warm, dry weather are much benefited by having the ground lightly rolled over them.

The sowing being completed, place on the post before mentioned lath screens made the width of the bed, with the laths not more than an inch apart. This will screen the plants from the sun and in part protect them from the birds, which often pick up the young seedlings that are just breaking ground. If no laths are handy the seed beds can be covered with pine, hemlock, or cedar branches, quite thickly at first; but the beds must be watched carefully, and as soon as the young plants begin to appear the branches should be gradually removed, until only enough are left to slightly shade the young plants, and these should be raised some inches above the plants. It is a good plan where pine needles are plentiful to cover the seed bed thinly between the rows with them; this keeps down the weeds, saves much watering, and keeps the soil from washing or baking. If the ground is very dry at the time of sowing they will require a slight watering; otherwise they will not need it. In my experience there are few seeds that require so little water as those of conifers during germination.

The critical time with young conifers is the first three months of their existence, until they have made the crown bud; after that time there is very little danger, but until then extreme watchfulness is necessary; a great quantity of rain or a scorching sun will often prove fatal to thousands. Stirring the soil after heavy rains, and tilting the screens as soon as the sun is gone from them, or sifting dry soil amongst the over-wet beds of seedlings, is of great benefit. After the muggy weather of August is past they will require very little care the rest of the year. At the approach of cold weather they are best protected by a slight covering between the rows, and a few pine branches or a little meadow hay spread over the tops of the young plants will keep them in good condition until spring.

The Pines, such as the Scotch, Austrian, and Red, should not stand more than one year in the seed bed without transplanting, unless sown very thinly. The White, Black, and Norway Spruces will hardly be fit to transplant until the end of the second season. The Larch makes better plants if transplanted at one year, but will stand two if thinly sown.

The Silver Fir, Balsam Fir, Hemlock, and others of that section may stand in the seed bed two years, while the Arbor Vitæ should be transplanted after the first season. The seeds of the Juniperus and Taxus, of all species, do not germinate until the second year, and it is well to treat them as I have recommended for all slow-growing seeds. The Ginkgo, if fresh, will come up the first year, though I have had them lying in the ground two years. The *Pinus Cembra* and other Stone Pines will lie in the ground until the second year, though a few may come up the first.

The seeds of the Conifers, with the exception of the Silver Firs, will, if kept in a cool, dry place, retain their germinating powers for a number of years, and even under adverse circumstances. A few years ago we had some branches of *Pinus contorta* sent us, which had the cones of six years upon them. Each cone was opened separately and the seed carefully sown and labelled, and a portion of all but one grew, and that one was only two years old, while the oldest represented the seventh year. White, Scotch, Austrian, and Pitch Pine seeds came up fairly after being kept five years, and might possibly have been several years old when received. I have found in my experience that too much moisture is fatal to the germination of old seeds, especially resinous or oily ones. If sown in soil that is barely moist, and covered with dry sphagnum, so as to prevent the escape of the little moisture in the soil, many will grow; while if treated in the ordinary way the seed will swell and then rot.

A friend of mine, who does not like too much care, has a very simple way of raising annually several thousand seedlings of the Norway Spruce, and no doubt other evergreens might be grown under similar conditions. At the back of his house he has a white pine grove, which is trimmed up ten or fifteen feet; the soil is a light, sandy loam. In this he digs several beds, rakes them fine, and early in May sows the seed, rakes it in lightly, and sprinkles the bed lightly with pine needles. If the weather is very dry he gives the bed one or two waterings; if not dry, he lets it in a great measure take care of itself. In these beds the seedlings remain two years, when he transplants them into nursery beds, where they soon make nice young plants.

THE BOX SYSTEM

The remarks that I have made would apply to those who wish to raise trees in large quantities, and where the loss of a few hundreds in transplanting would be of no material account. To those who might wish to plant an acre or so every year, and want no failures, I would recommend another system, which requires less space and labor, though possibly more attention, but in the end any one could transplant the most difficult trees, such as oak, hickory, or chestnut, with no loss. For want of a better name I have called it the "box system." No doubt it has often been used, but I have not heard of any one using it largely except myself.

By this method every root is preserved, and not even a fibre destroyed; there are few if any large tap roots to cut off, and even if grown in the nursery afterwards they lift with finer roots than the seedlings grown in the ordinary way; and though they will not make so vigorous a growth the first year as they would in the open seed bed, at the end of the second year after transplanting they are ahead of those of the same age grown in the ordinary way; and with no failures. Nine years ago we transplanted from the seed boxes to a hill-side, in sod ground with no preparation except to turn over the sod with a spade where each tree was to go, some hundreds of oaks one year old, and today they are fine young trees, from six to nine feet high, well formed, and much more vigorous than those grown in the nursery, which have had a great amount of care and labor bestowed upon them. I believe that if many of our early planters had used this system in growing oaks, hickories, and other hard wood trees, they would not have had so many failures to complain of.

In the first place procure a lot of common boxes, such as may be had at any grocery store; any kind of boxes will do, though a uniform size is best, as they occupy less space in a six-foot frame, when packed away, than boxes of various sizes would. I usually get those that have contained canned goods, or soap, as they are nearly equal in size, and with two cuts of a splitting-saw you have from each box three flats, from three to four inches deep, which is a good depth for any ordinary seed. With a half-inch auger bore three or

four holes in the bottom of each box for drainage. This will be sufficient for large-rooted plants, while the finer seeds will require to be well drained with broken pots, coarse siftings of peat, or any coarse material that will allow the moisture to pass off readily.

As soon as the seeds are ripe, in the fall, get together a good pile of compost, made as follows: two parts rotten sod, one part peat, and one of sand, and if the seeds to be sown are oak, hickory, beech, chestnut, or walnut, add a portion of good rotten manure. For such seeds as I have mentioned fill your boxes two-thirds full of the compost, and press down firmly with a board or the hand. Sow the seeds evenly and press them down in the soil, covering them from half an inch to an inch in depth, according to their size. On one corner of each box smooth off a place with a plane or knife, rub over with white lead, and write the name of the seed and the date of sowing. This takes only a few minutes, and is of much value afterwards, especially where a great variety of seeds is sown. It is much better than labelling in the ordinary way, and there is no danger of the record being lost in moving the boxes from one position to another.

The fine seeds—such as those of maples, elms, birches, alders, and others — should be covered, according to the size of the seeds, about their own diameter. After sowing, the seeds should have a good watering with a fine rose, to settle the soil. The boxes can then be piled four or five deep in a pit, the sashes placed in it, and at the approach of cold weather they may be covered with meadow hay, or leaves. This does not keep the boxes from freezing, but when once frozen it keeps them so until spring. If no pit is available the boxes can be piled six or seven deep in a well-sheltered spot, covering the upper boxes with a few boards, the whole to be covered with leaves or other litter.

In the case of all the seeds I have mentioned as taking one or more years to germinate it is unnecessary to cover the boxes with litter; but it is well to cover with boards, so that mice or squirrels may not get at the seed; and in many cases seed that has been so frozen will often come up the first season, which otherwise would not have come until the second. As soon as the weather is settled, which is usually about the middle of April, choose a well sheltered spot, level, and handy

to water. If the aspect can be an eastern or south-eastern one I like it better, as they get the early morning sun, but not the scorching sun at noonday.

Place all the boxes containing the nuts, acorns, and other large seeds together, in beds of three boxes wide. This will make it very compact, and much easier to care for them than if the boxes containing seeds of the same class are scattered about. The only attention these will require is to keep them well watered and free from weeds; but for such seeds as maple, ash, Carpinus, Cratægus, elm, Cladrastis, and others of like nature, it would be well to cover the boxes with lath screens until they have made the second or third rough leaf, when they might be gradually hardened off and finally exposed fully to air and light. If a few sashes could be spread to protect all delicate growing seeds it would be of great advantage, and as soon as well up they could be treated the same as the others.

The use of lath screens on seed beds saves a great amount of labor in watering, and if the plants are neglected for an hour or so the results are not so disastrous as when the young seedlings are fully exposed to the sun. Any boxes of seeds that do not come up before the last of June will hardly appear that year, but will require to be kept moist, the same as the growing plants. I usually place all such boxes together in a shady spot and cover them to the depth of an inch or more with sphagnum, and by giving them a good watering once or twice a week they are carried safely through the summer. At the approach of cold weather they are gathered together, piled five or six deep as before, and covered for the winter. When spring comes on they will need to be treated as seed that has just been sown. For the finer seeds, such as azalea, rhododendron, kalmia, and others, a special treatment is required, which I will speak of later.

In the fall of the first year the boxes of young trees may be gathered together and wintered in a deep pit or frame and slightly covered with meadow hay. If no frame is available, three or four inches of pine needles or leaves may be placed over the boxes, and they may then be left until spring; but on no account should the boxes be left without any protection, as the young seedlings will then suffer very much in so little depth of soil.

All seedling trees can be transplanted when very young as easily as cabbages or tomatoes if taken as good care of; and many of them are benefited by the operation. We transplant thousands of them every year with but little loss. The best time is when they are making their first or second rough leaf.

In the spring of the second year all the young seedlings should be transplanted from the seed boxes to the nursery beds, or the larger ones planted where they are to remain; and for chestnuts, hickories, and oaks I believe it is best to plant them from the seed box to the field where they are to remain. If planted in nursery beds, or rows, the treatment will be the same as I have spoken of under the head of treatment in nurseries.

The boxes I have mentioned are usually from fourteen to sixteen inches square, and will hold from 100 to 125 oaks, hickories, chestnuts, or beeches; 175 to 200 ashes or maples; 250 birches or elms; and so on according to the growth of the plants. Where a greenhouse can be used for this purpose, with frames to harden off the young seedlings, much better results can be obtained, and many of the finer seeds can be grown, which it is next to impossible to grow in large quantities out of doors.

In conclusion I would say that, while I have not mentioned every tree by itself, the general principles are the same for all; that as a rule the soil should be of the best description and sheltered; that all seeds should be covered only a little, if any, deeper than the diameter of the seed; that they should be kept clean from weeds, the watering well looked to, and the shading, in the case of the finer seeds, be carefully attended to. They should be protected the first season, and in the end will well repay all the care and attention that have been bestowed upon them; and any one owning a few acres of land, who will plant a few boxes of chestnuts, black walnuts, beech, oak, hickory, or other hard wood trees, that are usually considered so difficult to transplant, after growing them one year in the boxes and transplanting the following spring where they are to remain, will be astonished to see how much land can be covered in a few years with healthy young growths of hard wood with very little trouble or expense. And in New England, as well as in other parts

of our country, we have too many acres lying idle, which it would be more profitable to plant with trees than anything else.

RHODODENDRONS, AZALEAS, AND KALMIAS

The propagation of these from seed demands great attention and care, and cannot be successfully done out of doors, but requires a greenhouse. The best soil to grow young seedlings of this class is composed of good peat, loam, and sand, in equal parts. The sand should be fine, but sharp and clean, having no clay or iron in it. Earthen pans are best to sow the seed in, as there is less danger of fungus than with boxes; but after the first transplanting boxes may be used.

Being all ready to sow, — say about the first week in January, — the pans should be well drained by filling them one-third with broken crocks, over which put a covering of sphagnum, or the coarse siftings of peat, so that the soil will not work in among the drainage; then put in about two inches of the compost mentioned above, have it well firmed, and give the pans a gentle watering with a fine rose to settle the soil. As soon as settled the seed can be sown quite thickly, but evenly, over the surface. They should then be covered with the slightest possible covering, — not more than the sixteenth of an inch, — after which put over the pans a covering of fine sphagnum, give a gentle syringing, and place in a temperature of seventy degrees. After sowing, the seed should on no account be allowed to get dry; but at the same time saturation should be avoided. The seed will usually come up in from two to three weeks, and in the meantime the pans will have to be examined occasionally to see if the seed is coming.

As soon as it shows signs of germinating the coarsest of the moss should be gradually removed, and when the seed is fairly up a slight sifting of fresh soil among the young seedlings will help to strengthen them. As soon as they have made the first rough leaf they should be pricked off thickly in boxes or pans of fresh soil prepared as for the seed, carefully syringed, and kept growing in a high temperature and moist atmosphere. Such delicate seedlings as rhododendrons at this stage should never be transplanted in a shed or room where there is any draught, but always in the close,

moist atmosphere they are grown in, as the roots are so delicate that only a moment's drying makes them almost worthless. After five or six weeks the plants will have covered the surface of the ground in the boxes, when they will again need transplanting, this time half an inch apart, and to be otherwise treated the same as before, always being sure to use fresh soil and clean boxes at each transplanting. At this stage, if everything has been carefully attended to, they will grow very rapidly, and will need transplanting the third time, and, if properly cared for, they will need to be planted two inches or more apart.

This frequent transplanting in fresh soil each time keeps the plants from damping and also forms the foundation of a vigorous plant for the future. If rhododendron seedlings are left long in the seed box or pan they are apt to be attacked by a minute fungus, which will often carry off thousands in a night. The best remedy I have found to check it is, at the first signs of its appearance, to heat a shovelful of sand quite hot and sift it amongst the young seedlings, using a very fine sieve. Many would think that it would destroy the plants at this tender age, but it does not; I have tried it on almost all kinds of young seedlings, and have found it very effective in destroying the minute fungus which is such a pest among young plants.

About the first of September more air and less moisture may be given, so as to harden the plants off preparatory to their removal to winter quarters, which should be a deep frame or pit in some sheltered situation. They may be put in this pit the first of October; or sooner, if you need the house for other purposes. In this pit they should have plenty of air every pleasant day, but should be covered every night to keep them from frost as long as possible. This can readily be done in most seasons up to the middle of December or the first of January by a single mat; they can then be covered with mats, or meadow hay, and will only need to be uncovered once every two weeks for an hour or so to guard against damp or excessive moisture, which will often cause a fungus even in a cold pit if kept long without air.

In the spring, about the first of May, they can be transplanted into well-prepared beds of peaty soil or a light, sandy loam of good depth. If dry weather sets in they will require

plenty of water, as they are not deep-rooted at this time; if water is handy I give them a good syringing every evening as soon as the sun begins to leave the bed, until the middle of August, when I withhold all moisture so that plants may ripen well before winter sets in. If they have been well cared for they will be from six to seven inches high at the end of the second season.

At the approach of cold weather a slight covering of leaves between the young plants, and covering the tops with pine boughs, or coarse meadow hay, to keep the sun off, will carry the plants through the winter in safety. The following spring they may be planted in the nursery, where they can remain until used. The same treatment will apply to Azaleas, Kalmias, and other Ericaceous plants, only the Azaleas grow much more rapidly than the others, and at the end of the second season such species as *mollis* and *calendulacea* will have quite a number of flower-buds on them, while the Rhododendrons will scarcely show signs of flowering until the fourth or fifth year.

Medals and Certificates

The following is a list of the Medals and Certificates awarded by the Massachusetts Horticultural Society in the year 1923:

George Robert White Medal of Honor

John McLaren, Superintendent of Golden Gate Park, San Francisco, California, for eminent service in horticulture.

Gold Medal

April 5. Julius Roehrs Co., group of orchid plants in flower.
" 5. A. C. Burrage, best display of orchid plants in flower.
" 5. Walter Hunnewell Estate, group of orchid plants in flower.
" 5. Thomas Roland, exhibit of acacias in bloom.
" 5. Garden Club of America, exhibit of model gardens. Mrs. Bayard Thayer, Chinese lilies.

Appleton Gold Medal

April 5. A. N. Cooley, best twelve orchids.
" 5. " " " best six orchids.
" 5. A. C. Burrage, best specimen plant orchid.
" 5. Frederick Pocock, artistic arrangement of orchid plants.

Silver Medal

April 5. Mrs. Alice H. Burrage, display of Kalmia latifolia.
" 5. J. T. W. Uffman, superior cultivation of Cymbidiums.
" 5. Oliver Lines, superior cultivation of orchids.

June 16. Mrs. M. F. Roberts, peony Priscilla Alden.
" 16. T. C. Thurlow's Sons, Inc., the most meritorious display of peonies.
" 23. R. S. Bradley, largest and best collection of hardy roses.
August 11. A. E. Kunderd, collection of not less than fifty named gladioli.
September 8. Bay State Nurseries, hardy herbaceous flowers.
November 2. A. C. Burrage, Brasso-Cattleya G. G. Macdonald.
" 2. R. & J. Farquhar Co., display of chrysanthemums.

Appleton Silver Medal

April 5. E. S. Webster, best six orchids.
" 5. Walter Hunnewell Estate, best specimen plant orchid.

Bronze Medal

April 5. H. S. Rand, display of zonal pelargoniums.
June 9. H. F. Chase, most comprehensive display of irise.
" 16. T. F. Donahue, the most meritorious display of peonies.
August 11. North River Farms, collection of not less than fifty named gladioli.
September 8. H. R. Comley, basket of dahlias artistically arranged.
November 2. F. W. Hunnewell, artistic display of orchids.

First Class Certificate of Merit

January 8. E. B. Dane, Cypripedium insigne var. Louis Sander.
April 5. A. C. Burrage, Brasso-Cattleya Mrs. J. Leeman.
" 5. " " " Laelio-Cattleya St. George.
" 5. " " " Odontioda Rajah.
" 5. " " " Odontoglossum warnhamense Orchidvale variety.

" 5. Julius Roehrs Co., Bougainvillea spectabilis Carmine.
" 5. J. Onderwater & Co., Hyacinth Marconi.
" 5. William Sim, Carnation Eldora.
" 5. " " Carnation Sunset.
" 5. C. B. Johnson, Carnation Harvard.
" 5. Joseph Breck & Sons, Stock Apricot Beauty.
June 16. E. J. Shaylor, Peony Luella Shaylor.
" 16. A. C. Burrage, Dendrobium acuminatum.
August 11. H. E. Meader, Gladiolus Orange Queen.
" 11. " " " Gladiolus Souvenir.
" 11. E. N. Fischer, Gladiolus Ornatus.
" 11. F. W. Hunnewell, Laelio-Cattleya elegans. Laelia majalis.
" 25. A. E. Kunderd, Gladiolus gandavensis Exquisite.
November 2. A. C. Burrage, Cattleya Bowringiana lilacina, C. Gaskelliana coerulescens.
" 2. E. S. Webster, Chrysanthemum Jane Harte.

Cultural Certificates

April 5. Frederick Pocock, specimen Cattleya Schroderae.
July 7. Henry Stewart, cut Lilium regale.

Honorable Mention

April 5. Walter Hunnewell Estate, Rhododendron obtusum var. Kaempferi.
" 5. P. B. Robb, Tritonia crocata.
" 5. William Sim, Carnation Rosalee.
" 5. " " Carnation Rosalence.
" 5. Lowthorpe School of Horticulture, model of Lowthorpe School.
June 9. Miss Grace Sturtevant, display of irise.
" 9. " " " seedling peonies.
" 9. Mrs. E. A. Clark, Carnation Merveille Française.
" 16. W. B. Fay, display of peonies.
" 16. A. H. Fewkes, display of peonies.
" 16. E. J. Shaylor, Peony Deborah Sayles.
" 23. Hillcrest Gardens, Isatis tinctoria.
" 23. F. H. Allison, seedling peonies.

" 23. T. C. Thurlow's Sons, Inc., artistic display of peonies.
July 7. Miss M. L. Coburn, collection of garden carnations.
August 11. J. H. Alexander, Cactus Dahlia J. Herbert Alexander.
" 11. Upham's Corner Dahlia Gardens, seedling dahlias.
" 11. L. S. Ream, laciniated gladiolus.
" 11. Walter Hunnewell, Delphinium seedlings.
" 25. A. E. Kunderd, Gladiolus primulinus Clio.
" 25. " " " Gladiolus Ulrica.
September 8. W. N. Craig, Gladiolus Magenta.
" 8. Joseph Breck & Sons, display of dahlias and gladioli.
" 8. Miss M. R. Case, vase of dahlias.
" 8. B. H. Tracy, collection of seedling gladioli.
" 8. C. W. Brown, collection of seedling gladioli.
" 8. Walter Hunnewell, display of delphiniums.
" 8. H. R. Comley, table decoration.
" 8. Mrs. B. H. Tracy, table decoration.
" 8. E. M. Gerould, table decoration.
November 2. C. B. Johnson, seedling Carnation Peach.
" 2. " " " display of seedling carnations.
" 2. S. J. Goddard, display of seedling carnations.
" 2. Harvard College, display of foliage plants.

Other Awards

June 9, the Hillcrest Gardens Silver Cup, for the best display of irise arranged for effect by an amateur, to be awarded to the exhibitor winning it three times, was awarded for the third time to Iristhorpe (Mrs. Homer Gage).

W. B. H. Dowse Trophy

Arthur Lyman, Waltham, Mass.

Part of the Exhibit of President A. C. Burrage at the March Exhibition, 1923

Reports of the Officers and
Committees for 1923

Massachusetts Horticultural Society

Presented at the Annual Meeting
January 14, 1924

With a list of the members of the society
corrected to January 1, 1924

Inaugural Meeting

The inaugural meeting was held at Horticultural Hall at 3 o'clock in the afternoon of Monday, January 14, 1924, with a much larger attendance than usual. President A. C. Burrage was in the chair. The secretary read the call for the meeting and the minutes of the previous meeting at which the officers for 1924 were elected. The rest of the meeting was given to the reading of the president's address and the presentation of reports.

Address of the President

In the early days of this Society the inaugural meeting was a very important and solemn function and the by-laws still require that on this occasion the president shall deliver an inaugural address and that the annual reports of the trustees and different committees shall be made.

With your permission, however, I am today going to depart from the custom of the past and, instead of an inaugural address, give you a Report of Progress.

It is well known that we have a splendid building, built for the purpose, and a horticultural library unsurpassed in the whole world; and, thanks to the generous benefactors who have passed on, we have a substantial endowment fund —not sufficient for our needs, but very helpful.

So far as I know, no other horticultural institution in the world has all three of these in any way comparable to our own.

But these alone are not sufficient unless they are utilized to interest people in horticulture. Concrete foundations and granite walls can make mausoleums as well as exhibition halls. Libraries, however complete, are of little value unless they are consulted.

Nor is the international reputation of the Massachusetts Horticultural Society due to any one man or any one deed. It is due to the actions of a long line of distinguished citizens

of Massachusetts who, in their love of horticulture, have given their time and thought to this institution.

I am here to tell you that we *are* carrying on. We *are* making good. Though we realize that much is left undone, we are proud of what we have already done.

I am going to refer briefly to some of the things in our recent record.

When I first became president of this Society, in January, 1921, it had fifteen trustees and the average number of trustees attending meetings in 1920 was eight. Today you have twenty trustees and the average attendance for the year 1923 was twelve.

Up to January, 1921, no woman had ever been a trustee of this society. Now you have four, every one of them energetic, self-sacrificing, resourceful and most influential.

In the past year the liveliest interest in the society's work has been shown by all the officers, trustees, employees and committeemen. The committee meetings have been numerous and remarkably well attended.

Until last January it had been the custom of the society to charge an admission fee for all its principal exhibitions. In other words, it welcomed the public provided they paid cash to come to the exhibition; and a large part of this cash was expended in advertising to coax the public to come and pay their admission fee. The past year the trustees tried the experiment of having all exhibitions free to all the public. They were of the opinion that the exhibitions would do the most good if they could be open to everybody, so that all, regardless of position, might see the latest and best results of horticulture. It was felt that in this way the influence of the society would be extended over a wider area and greater good be accomplished.

The result has been most gratifying. The attendance for the whole year was 64,846, and the attendance at the principal show of the year—the Spring Exhibition—was 23,774.

Only once in the eleven years preceding 1923 did the income of the society exceed the expenditures. That is, the records show that in the years from 1912 to 1922, inclusive, a loss was incurred in every year except 1919. It is gratifying, therefore, to know that for 1923 our income exceeded our

expenditures by $552.63, and the expectation is that for the year 1924 this excess will be larger.

It is fair to state that this is partly due to the income received from the portion of the Arthur F. Estabrook bequest which has been paid over to the society, and, on the other hand, it is expected that in the near future the last payment from this estate will be made to the society and an increased revenue derived from it. It is also true that the Society will have additional income from the $7,000 which it will receive from the sale of its vacant land in South Boston which it received from the Francis B. Hayes estate and upon which it has been paying, for over twenty years, taxes and other expenses. It is also true that some changes have been made in the invested funds of the society so that they will yield a greater return.

During the past two years much has been done in the way of permanent repairs and improvements to the building, such as new partition walls, fire shutters, and a concrete floor in the main exhibition room, which not only make for greater cleanliness and safety but also make the building more desirable for rental for exhibitions and other purposes, so that the increased rental for 1923 over 1922 has been over $2,000—a substantial improvement in itself in the finances of the society.

The Board of Trustees of this society have earnestly sought to broaden the scope of the society's work and to extend the number of its members so that it could be of greater usefulness in the community which it serves. With this in view, the trustees have recently voted to try the experiment for the year 1924 of foregoing the payment of any sum whatever as admission or entrance fee for annual members. In other words, the initiation fee of ten dollars for annual members will be omitted; the trustees believing that this will be taken advantage of, in these days of high living costs, by many who are willing to pay the annual dues of $2 but who feel the burden of the payment of a ten-dollar initiation fee. We believe that, as a result of this radical change, there will be a large increase in the number of members and a great extension in the work of the Society. We believe this change will be as successful for 1924 as the alteration of the by-laws for

1922 and the removal of the admission fee to exhibitions for 1923.

Recently the Committee on Exhibitions have held many protracted, fully-attended meetings and have been at great pains to improve the schedule for the exhibitions and to bring it up to date.

The Trustees have again determined to provide for giving greater consideration and awards to those who have demonstrated superior horticulture in the management of their estates and gardens, and hereafter a more active interest will be taken by the trustees and their committees constituted for this purpose in the examination and inspection of superior gardens, large or small.

In addition to this, the Trustees have voted that greater recognition will be given to the gardeners or superintendents who have shown unusual skill in the cultivation and improvement of gardens and plants.

In accordance with the new provisions of the by-laws of 1922, the trustees have arranged that at each of the major exhibitions of the year, the Committees on Plants and Flowers and Fruits and Vegetables, shall be assisted by someone who is an expert horticulturist in the special subjects provided for in each of the main exhibitions. This is done with the expectation that greater appreciation and attention will be shown to the superior products of horticulture.

After mature consideration, the trustees have appointed Mr. Edward I. Farrington secretary, and they believe that the effectiveness of the society will be greatly increased through his knowledge of horticultural matters, his energy, and his wide acquaintance with the various horticultural interests of Massachusetts. They bespeak for him your hearty co-operation, for it is only by such action that the society will derive the greatest benefit from this very important action.

For the purpose of establishing a closer relationship between the members of this society and giving to each member the opportunity of communicating to other members the results of his horticultural work, and of giving the public the benefit of knowledge of importance in horticulture, the Society has purchased and is now publishing as its official organ the publication heretofore known as HORTICULTURE. The warm approval which has been accorded this acquisition

and the great increase in the subscriptions for this semi-monthly magazine is most gratifying.

In obedience to your appointment, it was my great privilege and honor, as your representative, to attend the fiftieth anniversary of the foundation of the Royal Horticultural Society of Holland at Amsterdam last September. The courtesy and attention shown me at that time made very clear the high esteem in which this society is held by the many horticultural interests in Europe. There was, however, no mistaking the deep resentment felt by those horticultural interests at the restrictive and prohibitive quarantine regulations which have in recent years been imposed by the Federal Horticultural Board of the United States Government. Before this quarantine was established, Holland shipped annually several million dollars worth of horticultural products to the United States. On account of the quarantine, a large part of this business has been cut off and many horticultural establishments have been seriously hurt, and many given up. The Dutch feel that these restrictions are unnecessary and unfair and are therefore unhappy over their situation.

In connection with this Congress it was possible for me to visit many of the horticultural establishments of the Continent of Europe. Time does not permit me to describe these visits, but I may give you the result in my mind. Briefly, it is a profound respect for the skilled horticulturists of the Old World, for their respect for their traditions and inheritances—for their studious researches in botany and horticulture—for their eagerness to initiate as well as to profit by the teachings of others—for their thrift and for their accomplishments in standardizing and perfecting the horticultural products which are so necessary to modern civilized life.

For a number of years the exhibitions of the Massachusetts Horticultural Society have been very largely dependent upon the interest and active work of amateurs, and there has been, from one cause or another, a slackening of the interest of the commercial gardeners, not only in flowers but in fruits and vegetables. The trustees are now considering plans for the betterment of this situation and it is likely that during the present year the heartier co-operation of the commercial horticultural interests in Massachusetts will be definitely urged by the society and greater pains will be taken to bring about

better and more comprehensive exhibitions by such interests and a greater appreciation and reward for them.

This is the fourth time you have unanimously elected me your president—surely, in these days, a rare and distinguished honor. It is one, however, which I have never sought or expected—or deserved; but one which I fully appreciate and for which I am deeply grateful. I was not chosen to teach or instruct you, but to induce others to help, and this is what I have sought to do rather by example than by words, rather by showing what nature has than by showing how man has improved upon nature. Your appreciation of my efforts has pleased me greatly and has proved a great reward, and next year, when you choose my successor, I hope that you will select one who has real knowledge of the science of horticulture, of botany, and of the laws of plant-life, which will enable him to make better use of the wonderful assets possessed by the Society.

Those who have built and carried on this Society for ninety years have done well, and it is right that the Society should continue for many generations strong and sturdy—a beneficent factor in the advancement of our civilization and the appreciation of the finer things of life.

A. C. Burrage, *President.*

Report of the Secretary

The business of the second year under the new by-laws of the Massachusetts Horticultural Society has been carried on with a smoothness and precision which indicate the wisdom shown in framing these by-laws. It has been a year of many changes, some of unusual importance and one, at least, distinctly radical in its nature. The Society has accepted new responsibilities and has shown a progressive tendency which is in keeping with the times.

It has taken important measures to improve its exhibitions.

It has broadened the field of the library without detracting from its technical value.

It has opened its membership to a far greater number of persons.

It has purchased a going publication of national circulation which it is now publishing as its own, being the first organization of the kind in the country to adopt such a course.

It has employed a new secretary, accepting with regret the resignation of the official whose long term of service had brought him into friendly contact with hundreds of members.

The Inaugural Meeting for the year 1923 was held at Horticultural Hall at 3 o'clock the afternoon of January 8. Vice President Allen was in the chair. The reports of the various committees were read, accepted and placed on file.

Following a vote of the executive committee at the February meeting three pairs of iron shutters were placed on the library windows next to the St. James Theatre at a cost of $400, greatly decreasing the risk of fire.

It was also voted at this meeting that an invitation be extended to the American Orchid Society to hold an exhibition in the halls May 8 to 11, 1924, and offering two gold medals and six silver medals. The offer was accepted and the exhibition, for which active preparations are now being made, gives promise of being the most important event of the kind ever held on this continent.

At a meeting of the executive committee on June 15, a letter from Mrs. Bayard Thayer presented a plan for obtaining the cooperation of the ladies in improving the exhibitions of the Society, and a vote was passed requesting the lady members of the Board of Trustees to make such recommendations to the full board as they might deem advisable.

As a result of an offer from the Lenox Garden Club through its president, Miss Georgiana Sargent, at a meeting of the Board of Trustees, on June 26, a prize of $50 for an exhibition of perennials appears in the schedule for 1924. Mrs. Harriet J. Bradbury offered the sum of $2,500 to be added to the George Robert White Medal of Honor Fund, in order to keep the income at the required amount for casting a new medal each year. Mr. Edward B. Wilder offered the Society a painting of the exhibition of the United States Agricultural Society in Boston in 1855. Mrs. Homer Gage offered a prize of $50 to be given in any exhibition of the Society, and in any

class except the Iris classes. All three offers were accepted with thanks.

The Wilder painting, in which the figure of Marshall P. Wilder appears on horse back, has been hung in the library. It was with great regret that the members of the Society read later in the year of the death of Mr. Edward B. Wilder, who was chairman of the Committee on Fruits, and active in the work of the Society. Mr. Albert R. Jenks, of Acton, was appointed Mr. Wilder's successor as chairman of the fruit committee.

At the June meeting the resignation of Mr. William P. Rich as secretary, librarian and superintendent of the building, was accepted. At a very largely attended meeting of the Trustees on July 19, Edward I. Farrington was appointed to these positions, and later was made editor of the Society's publications. An arrangement was made with Mr. Rich to continue his service in the library. At this meeting the Trustees voted to purchase the publication known as Horticulture, Gardening Edition, with the exclusive right to use the name of HORTICULTURE as the title of the magazine. Since the first of August, this publication has been issued by the Society and now has a circulation of about 6,000 copies. It has been successful in creating an interest in the work of the Massachusetts Horticultural Society in all parts of the country. At a subsequent meeting of the executive committee on August 3 it was voted that three trustees, Professor C. S. Sargent, Mr. E. H. Wilson and Mr. Fred A. Wilson, serve as a committee to have direct control of HORTICULTURE'S editorial policy.

At a meeting of the executive committee November 26 much time was devoted to a discussion of the shows. The committee on exhibitions was requested to arrange for appropriate recognition of superior horticultural work on the part of gardeners and superintendents of estates, and to provide for a lesser number of small money prizes and a greater number of larger money prizes in the 1924 schedule. As a result of these votes and the general discussion, the Committee on Exhibitions has made many very important changes in the new schedule, combining two of the early summer and two of the autumn shows, arranging for many additional displays and eliminating all

small classes for the Gladiolus and Dahlia exhibitions, which will be held in cooperation with the New England Gladiolus Society, and New England Dahlia Society, as in 1923, when the plan proved very successful.

The final meeting of the executive committee was held December 13, when President Burrage urged that radical means be taken to increase the membership of the Society and thus increase its usefulness. He proposed that the entrance fee of ten dollars for annual members be waived for the year 1924. After full discussion, a vote to this effect was carried and was later ratified by the full board of Trustees. As a result of this action, many applications for membership blanks are being received by the secretary.

At this meeting it was voted (the vote being ratified by the trustees at a later meeting) that a gold medal be awarded by the Society in 1926 to the owner of the native tree which in the opinion of the Society's committee is the best among those entered for competition in the matter of size, general appearance and evidence of care. An offer of the plaster designs of the White Medal made to the Society by Professor C. S. Sargent was accepted and the designs, nicely framed, have been hung in the committee room.

At a stated meeting of the Trustees on December 17, it was voted to sell a parcel of land owned by the Society in South Boston, and upon which taxes have been paid for many years, for $7,879. At this meeting the Trustees voted an appropriation of $5,000 to cover the prizes offered at the exhibitions of 1924.

In the course of the year the Society's Gold Medal was awarded by vote of the Trustees to Mrs. Bayard Thayer for her efforts to preserve and propagate the newer Chinese Lilies, including Lilium regale and L. Thayerae, and by the garden committee to Mr. and Mrs. Henry Sargent Hunnewell of Natick for their unusually well planned gardens, and especially their Rose garden. The medal comes from the Hunnewell Fund.

The George Robert White Medal was awarded at the close of the year to Mr. John McLaren, superintendent of Golden Gate Park, San Francisco, for his eminent service in developing horticulture on the Pacific coast.

Special mention should be made of the annual meeting on November 17, which resolved itself somewhat informally into what President Burrage called a "town meeting" and at which many suggestions of value and importance, especially as relating to the shows, were presented. At this meeting the officers who are being inaugurated today were elected without opposition.

Death has taken an unusually heavy toll of members the past year, 29 life members and four annual members having passed away.

Seventeen life members and thirteen annual members have been added, making the total membership at the close of the year 1,010.

In the course of the year the library was increased by the addition of 305 books and hundreds of pamphlets. It was also enriched by a very unusual gift from Warren H. Manning, consisting of trade catalogues, running back almost to the beginning of the past century. This collection, which has great value, is being classified and put on the shelves in a special room and in such a manner that any catalogue from any part of the world can be located in a few moments' time.

It is expected that this collection will be greatly appreciated by commercial horticulturists. Mr. Woodward Manning has very generously given the Society his collection of photographic negatives, illustrating trees, shrubs and flowers, and including many hundred subjects. These negatives are being printed and the photographs will be catalogued and filed for the use of the members. Votes of thanks have been extended to both Mr. Warren Manning and Mr. Woodward Manning.

There has been an increasing demand for the halls throughout the year, a sum amounting to $10,970.66 having been taken in as rentals as against $8,582.04 in 1922.

The lectures given at the exhibitions throughout the season were well attended, and were so successful that the plan is to be continued throughout 1924, but without expense to the Society, each of the four lady Trustees having contributed $100 and Mr. Burrage $200, making a total of $600 available for these summer lectures.

In closing his report, the secretary desires to express his appreciation of the hearty support given him by the officers and Trustees during his short term of office, and of the many kindly expressions from members who have visited the hall.

E. I. Farrington, *Secretary.*

Report of the Treasurer

Income

Income from Investments and Bank Interest....		$16,797 84	
" " Rents		10,720 66	
" " Membership Fees		446 00	
" " Sale of Lots in Mt. Auburn Cemetery		1,481 81	
" " Library Catalogue		50 00	
" " Sundry Donations		311 00	$29,807 31

Expenses

Operating Expense		$21,622 11	
Viz: Salaries	$4,730 42		
Insurance	1,395 54		
Heating	2,057 14		
Labor	6,857 80		
Incidentals	2,205 60		
Stationery and Printing	1,056 72		
Lighting	1,326 72		
Library	377 14		
Postage	120 00		
Repairs	1,495 03		
Prizes		$ 3,553 75	
Viz: Plants and Flowers in excess of income from special funds ..	$1,365 00		
Fruits in excess of income from special funds	624 00		
Vegetables in excess of income from special funds	1,322 00		
Children's Gardens	242 75		
Expenditures by Committees		$ 1,694 72	

Viz:	Lectures and Publications	1,002 00		
	Medals	191 72		
	Plants	223 00		
	Fruits	136 00		
	Vegetables	142 00		
Expenses Paid from Funds			$ 2,193 10	
Viz:	Samuel Appleton Fund	$ 69 00		
	John A. Lowell "	90 00		
	Theodore Lyman "	274 00		
	Josiah Bradlee "	35 00		
	Benj. V. French "	134 00		
	H. H. Hunnewell "	113 00		
	Wm. J. Walker "	129 00		
	Levi Whitcomb "	48 00		
	Benj. B. Davis "	35 00		
	Marshall P. Wilder "	38 00		
	Henry A. Gane "	139 00		
	John S. Farlow "	108 33		
	John D. W. French "	229 10		
	Benj. H. Pierce "	12 00		
	John C. Chaffin "	121 00		
	John Allen French "	357 00		
	John S. Farlow "	255 00		
	George R. White Medal	6 67		
Miscellaneous Expense			191 00	
Excess of income over expenditures			552 63	$29,254 68

Membership

December 31, 1923

Life Members, December 31, 1922		814	
Added in 1923		17	
Changed from Annual		3	
		834	
Deceased		29	805
Annual Members, December 31, 1922		203	
Added in 1923		13	
		216	

Changed to Life	3		
Deceased	4		
Resigned	2		
Dropped for non-payment of dues	2	11	205
Membership, December 31, 1923			1,010

Income from Membership

17 New Life Members at $30	$ 510 00
13 New Annual Members at $10	130 00
3 Annual Members Changed to Life	58 00
Annual Members' Dues for 1923	316 00
	$1,014 00

List of Stocks and Bonds Held by the Massachusetts Horticultural Society

$2,000 Kansas, Clinton & Springfield 5% Bonds 1925	$ 1,980 00
$10,000 Lake Shore & Mich. Southern R.R. 3½% Bonds 1997	10,000 00
$50,000 Atchison, Topeka & Santa Fe 4% Bonds 1995	44,693 25
$11,300 Pere Marquette R. R. 5% Bonds	9,933 75
$25,000 Kan. City, Ft. Scott & Memphis 6% Bds. 1928	25,000 00
$50,000 Chicago, Burlington & Quincy, Ill. Div. 3½% Bonds 1949	50,000 00
$8,000 Boston & Maine R. R. 4½% Bonds 1944.	8,000 00
$4,000 American Tel. & Tel. Co. Conv. 4% Bonds 1936	4,000 00
$4,000 Interborough Rap. Transit 5% Bds. 1966.	3,920 00
$12,000 Pacific Tel. & Tel. Co. 5% Bonds 1937...	11,670 00
$10,000 American Tel. & Tel. Co. Conv. 4½% Bonds 1933	8,396 00
$5,000 United States Steel 5% Bonds 1963	5,043 75
$10,000 Appalachian Pr. Co. 5% Bonds 1941	9,225 00

$20,000	Atlantic Refining Co. 5% Bonds 1937....	19,940 00
$10,000	Chicago, Burlington & Quincy 5% Bonds 1971	10,212 50
$10,000	N. Y. C. R. R. Co. 5% Bonds 2013.....	9,950 00
$11,000	Consolidated Electric Co. 5% Bds. 1955..	10,010 00
$10,000	So. California Tel. Co. 5% Bds. 1947....	9,550 00
$11,000	Ohio Power Co. 6% Bonds 1953.....	10,835 00
$3,000	Chicago Junction Rys. 5% Bonds 1940....	2,824 50
$5,000	Commonwealth Edison 5% Bonds 1943....	4,932 50
$5,000	American Tel. & Tel. Co. 5% Bds. 1946..	4,973 75
$5,000	New England Tel. & Tel. Co. 5% Bds. 1952	4,982 50
$5,000	Detroit Edison 5% Bonds 1940.....	4,807 50
$13,000	Southern Public Utilities 5% Bds. 1943..	11,862 50
$5,000	Western Union 5% Bonds 1938.....	4,982 50

SHARES

337 Shs.	General Electric Co.	13,601 86
336 "	" " " Special Stock	
110 "	Standard Oil Co. of New Jersey.....	11,550 00

JOHN S. AMES,
Treasurer.

Report of the Committee on Exhibitions

Within the jurisdiction of the Committee on Exhibitions nothing of extraordinary moment occurred during the year 1923, with the notable exception that all exhibitions were open free to the public. The Committee followed the even tenor of its way to the appreciation and satisfaction of thousands of interested visitors.

Ten exhibitions were scheduled for the year. Nine on the regular list and one specially for fruits and vegetables. The first one April 5-8 was a Grand Exhibition of Spring Flowering Plants, with special prizes offered for Spring Bulb Garden. It was open for four days with the unusually large attendance of 23,774. The number of classes scheduled was 84. Number of classes filled 47. Prizes offered amounted to $3,226. Prizes awarded $1,574.

The Iris exhibition, June 9 and 10, brought an attendance

of 4,819. Classes scheduled, 32; Classes filled, 27. Prizes offered, $603; Prizes awarded, $355.

The Peony show followed, June 16 and 17 with an attendance of 3,892. Classes scheduled, 14; Classes filled, 13. Prizes offered, $134; Prizes awarded, $132.

June 23 and 24 came the Rose show with an attendance of 4,774. Classes scheduled, 54; Classes filled, 36. Prizes offered, $546; Prizes awarded, $317.

July 7 and 8—Rambler Roses, Small Fruits and Vegetables. Attendance, 3,757. Classes scheduled, 28; Classes filled, 22. Prizes offered, $220; Prizes awarded, $159.

August 11 and 12—Gladiolus. Attendance, 4,629. Classes scheduled, 52; Classes filled, 47. Prizes offered, $546; Prizes awarded, $432.

August 25 and 26—Children's Gardens. No record of attendance was kept. Classes scheduled, 31; Classes filled, 31. Prizes offered, $315; Prizes awarded, $255.

September 8 and 9—Dahlia show. Attendance, 6,326. Classes scheduled, 168; Classes filled, 151. Prizes offered, $254; Prizes awarded, $261. This is the only case when prizes awarded exceeded prizes offered.

September 28, 29 and 30—Special Exhibition, Fruits and Vegetables. Attendance, 4,868. Classes scheduled, 168; Classes filled, 151. Prizes offered, $1,898; Prizes awarded, $1,499.

November 2, 3 and 4—Autumn Exhibition. Plants, Flowers, Fruits and Vegetables. Attendance, 8,004. Classes scheduled, 104; Classes filled, 95. Prizes offered, $1,421; Prizes awarded, $1,119.

Summarizing, we find that the prizes offered for the year amounted to $9,171.25 and the prizes awarded amounted to $6,170.25. Leaving a balance of $3,001.

I have formulated these statistics for the use and benefit of those who may follow in making up the annual schedules. It will be noticed that all the classes scheduled do not fill, and of the prizes offered many are not awarded. So that, in making up the annual schedule considerable leeway is permissible in our demands on the Trustees for funds to cover the prizes offered.

In making up the schedule for 1924 it was deemed advis-

able to combine the late June show of Roses, Strawberries and Sweet Peas, with the one usually held in early July, as the classes are quite similar.

There seems to be a demand for prolonging some of the exhibitions. The experiment was tried this year with the Gladiolus show, carrying it over through Monday. It was not a success; the flowers faded and the attendance was small. This year the experiment of opening the Gladiolus show Friday evening and continuing through Saturday and Sunday will be tried. The opening evening will be something in the nature of a private view, limited to members of the Society. Similar arrangements will be made for the Special National Orchid Show, to be held in May.

The Committee begs to call attention to a few details of installation. It will be noticed that the usual enormous spread of staring white paper or cloth on the exhibition tables has been abandoned, and a more agreeable green note, skirting the tables has been substituted. A further improvement would be to substitute a moss green for the white usually used on top of the tables. Green is a much better foil than white for the colors of both flowers and fruit. That is a lesson which should have been learned from nature long ago.

The Committee suggests also that the monotonous mounting of exhibits on the dead level of flat tables be changed to more upright forms. It would be easy to accomplish by the use of steps, or of woven wire and more green foliage.

We must again call the attention of exhibitors to the rule that all exhibits must be properly labeled, which means that the exhibits must be labeled not only legibly but rightly, and the non-observance of this rule may lead to disqualification. In order that there may be uniformity in the matter of labels suitable cards will be furnished by the Secretary on application at his office.

The question of readjusting the artificial lighting of the exhibition halls is under consideration and we trust that the effect will be studied with more regard to our own exhibitions than to those of the promiscuous lessees.

The popularity with the public of different kinds of flowers is always an interesting subject. If it can be gauged by the attendance at the exhibitions this result follows: 1st, Dahlias

with attendance of 6,326. 2nd, Iris, attendance 4,819. 3rd, Roses, attendance, 4,774. 4th, Gladiolus, attendance, 4,629 and 5th, Peonies with an attendance of 3,892. As compared with two previous years, Dahlias continue to head the list; Irise have risen from 3rd to 2nd place; Gladioli have fallen from 2nd to 4th place and Peonies have fallen a peg.

We had as guests last year The New England Gladiolus Society and the New England Dahlia Society. Each of these societies had its own schedule of prizes, and as we made the dates synchronize with our own shows the scope of the combined exhibitions was much enlarged and the practice will be continued this year.

The schedule for 1924 has been prepared and printed and soon will be ready for distribution.

THOMAS ALLEN,
Chairman of Exhibition Committee.

Report of the Committee on Plants and Flowers

At the Inaugural Meeting held January 8, Donald McKenzie, gardener to Mr. E. B. Dane, exhibited an unusual plant of Cypripedium insigne v. Louis Sander, with four perfect dorsal sepals, and two perfect columns. It was awarded a first class certificate of merit.

SPRING SHOW, APRIL 5-8

The Spring Show was the best we have had for many years. It was particularly rich in well-grown plants.

The crowning feature was Thomas Roland's display of Acacias, occupying the entire lecture hall. In this exhibit Mr. Roland outdid himself. All the plants were first class specimens, and never so many kinds were shown before. Much skill was shown in the arrangement.

Here follows a list of the kinds shown:

Armata, var pendula, pubescens in two or three varieties, longifolia, heterophylla, Drummondii, Baileyana, grandis, Riceana, cultriformis, latifolia, paradoxa, dealbata, mucronota, ovata, and hispidissima.

The plants of Rhododendron "Pink Pearl" from the Thomas E. Proctor estate, have probably never been equalled before in this country.

Mr. A. C. Burrage's Orchid display had more specimens of unusual merit than has ever been shown in Boston at one exhibition, by one exhibitor.

F. W. Hunnewell's group of Cymbidiums was unusually fine. The Silver Medal for culture awarded the grower was well deserved.

Six specimen plants of Rhododendron obtusum Kaempferi from the Hunnewell estate were marvelous in color—a group of select varieties, showing wide range in color.

Julius Roehrs of Rutherford, N. J., set up a nice lot of commercial Orchid plants, and a new carmine flowered Bougainvillea, evidently of the B. spectabilis type, which attracted much attention.

Harry S. Rand, of Cambridge, made a very interesting display of Zonal Pelargoniums, showing more than 100 varieties, with much variation in foliage and bloom.

Mrs. Alice Burrage's display of Mountain Laurel was naturally placed and very effective. It required rare skill to get them all in such nice trim.

Harold Patten of Tewksbury staged some first-class Carnations. Wm. Sim's seedling Carnations attracted favorable comment, and undoubtedly some of them have a future.

The A. N. Cooley Orchids, which were awarded the Appleton Gold Medal, were all first-class specimens. The names of most of them follow: Brasso-cattleya Veitchii, Brasso-cattleya Queen Alexandria, Laelio-cattleya Haroldiana, Odontioda Zephryr, Odontoglossom ardentissimum, Cattleya Magal-Sanderae "Purity," Cattleya Schroederae, Cattleya Mossiae Cooleyana, Laelio-cattleya luminosa "Mandarin."

Mr. Burrage's Orchid display was wonderfully well set up. The grouping was done about a pergola of evergreen tree trunks, grotto-like in character, well blended and dressed up with ferns and other furnishing. A selection is made of the most notable plants:

Brasso-cattleya "Mrs. J. Leeman," finest yellow; Brasso-cattleya "St. George," salmon pink; many fine Odontiodas in scarlet tones, Odontoglossum warnhamense Orchidvale

variety,—a real gem, with sulphur yellow ground spotted red. There was an exceptional specimen plant of Cattleya Schroederae, three feet across, and crowded with blooms in the best condition. Other Orchids were: Brasso-cattleya Langleyensis, Sophronitis grandiflora, Oncidium splendidum, Odontioda "Kitty," Odontoglossum, McNabianum, Odontoglossum Rossii majus and Odontioda H. L. Chalifou. Some interesting and otherwise curious Orchids were Gongora galatea, said to look like a grasshopper; Angraecium sesquipedale, with long-tailed flowers; and the curious Saccolabium bellinum, with exserted movable lip.

Mr. H. Huebner, of Groton, Mass., showed his new stock, "Apricot Beauty," with large spikes and delicately tinted blooms.

E. S. Webster showed a fine specimen plant of Gloriosa Rothschildiana, which may be described as a climbing Lily. This plant probably attracted more attention than any other single exhibit.

A display that was very much admired was a vase of Tritonia crocata, shown by Mr. Peter Robb of Whitinsville. The flowers lasted remarkably well.

There were well grown specimens of Schizanthus from the Webster and Dane estates.

Bulbs were scarce and of moderate quality only.

RHODODENDRON, AZALEA AND IRIS SHOW, JUNE 9

Iris were shown in considerable numbers, but were not up to the mark in quality. The Iristhorpe (Mrs. Homer Gage) display showed the best culture and included, besides the best varieties of the Germanica type, some very good varieties of Siberica and orientalis, which are better suited for the hardy garden than grouping on exhibition. The old Pseudacorus also was shown in this group. Curiously there does not seem to be any hybrid with this species. We should think it a promising subject.

Miss Grace Sturtevant of Wellesley Farms had, as usual, a choice selection, including some of her best seedlings.

The only creditable display of Rhododendron blooms came from the Hunnewell estate at Wellesley. There were no varieties of special merit.

E. S. Webster had a fine lot of show Pelargoniums and French Hydrangeas.

Irving Stewart, gardener to Mr. Howard Coonley, showed some of his father's best hybrid Calceolarias, Stewartii and Lymanii being among them.

PEONY SHOW, JUNE 16

The Cherry Hill Nursery's big display was the dominating feature, but Mr. Donahue of Newton Lower Falls also showed some very fine blooms.

Mr. E. J. Shaylor of Weston exhibited a number of seedlings, some of outstanding merit, particularly "Deborah Sayles," a large rose-tinted variety. Another of merit was "Luella Shaylor."

Some of Arthur Fewkes' seedlings were attractive and distinct.

Mrs. Milton Robert of West Medford won the prize for the best seedling with a white variety of great promise.

ROSE, SWEET PEA AND STRAWBERRY SHOW, JUNE 23-24

Hybrid Perpetual Roses of late years have been indifferently shown. Apparently they are giving way to Hybrid Teas. However, the selection put up by Mr. R. S. Bradley, Prides Crossing, Mass., was a creditable one. Mr. A. J. Fish of New Bedford made a good display of Rambler Roses.

Competitors in the classes for Hybrid Teas were few, and the blooms quite ordinary. There were no new varieties of merit.

The Sweet Pea Society held their show in conjunction with ours. There was not a large display, and the flowers came mostly from Newport. Apparently it was too early for this vicinity.

The most conspicuous varieties were: "Hawlmark," pink and cerise; "Splendor," maroon; "Sunset," magenta; "Felton's Cream," Edna May, white; "Austin Frederick," lavender; "Royal Purple"; "Constance Hinton," white; "Doris," scarlet; "Tom Jones," deep blue; "President Harding," salmon; "Cherub," tinted salmon; "Mrs. Hitchcock," cream pink.

Henry Naber had the best collection of native flowers. Miss

Marian Roby Case exhibited some flowers of the "Woad" Isatis tinctoria. Mrs. Philip Weld showed hardy flowers.

RAMBLER ROSE SHOW, JULY 7

There was a comprehensive collection of Rambler Roses shown by Mr. A. J. Fish, of New Bedford. His "Silver Moon" was exquisite. Dr. Henry, a maroon, semi-double, was very much admired.

Mr. L. C. Colburn of Everett made an interesting display of garden Carnations from seed. Among them were many handsome varieties.

Henry Stewart of Waltham exhibited cut Lilium regale. They were extra good; as many as 16 flowers were counted on a single stem.

F. W. Hunnewell showed Laelio-cattleya "Mary Copley" (L. C. Amanda x Rex), sepals and petals pinkish cream, lip white edged, purplish blotch, centre bronzy veined.

GLADIOLUS EXHIBITION, AUG. 11-12

The Gladiolus Show was well above the average, the New England Society adding much to the display. The Hall, from a decorative point of view, was lacking in material to make an effective whole; in other words, there was little or nothing to relieve the monotony. There were few examples of the way to use Gladiolus flowers artistically. The only noticeable one was put together by Miss Sophie Fischer, and this was a basket.

Mrs. Hammond Tracy on various occasions has done most effective work in arranging Gladiolus flowers artistically.

One noticeable thing in the show was the extent to which the primulinus type is merging with the gandavensis and other large flowered forms. In a way this is a pity, for we lose rather than gain.

Large displays were made by A. L. Stephen, Waban; C. F. Fairbanks, Lexington; B. & A. Norley, Roslindale; W. N. Craig, Weymouth; W. E. Clark, Sharon; H. E. Meader, Dover, N. H.; J. A. Kemp, Little Silver, N. J. and others.

The outstanding varieties, which are also the principal winners of prizes were: "Europa," white; "Crimson Glow,"

"The Pearl," pink; "Marechal Foch," light pink; "Souvenir," golden yellow; "Gold," "La Coronne," lemon yellow, red center; "Dr. Norton," cerise, creamy center; "Peach Rose," "Dream," red; "Pink Wonder"; "Prince of Wales," orange; "Salmon Beauty"; "Cinderella," white; "Mrs. Pendleton," Lemoine type, and "Rosalind," maroon.

A nice selection of annuals came from John Doig, Barrington, R. I. Walter Hunnewell showed Larkspurs; Herbert Alexander, early blooming Dahlias. F. W. Hunnewell showed an Orchid Laelia elegans x L. majalis, sepals and petals white, or nearly white, lip white, purplish blotch, light yellow tint in the throat.

DAHLIA EXHIBITION, SEPT. 8-9

The Dahlia Show as usual brought together a big lot of enthusiasts, mostly dealers. Dahlias now are too big At present it seems that bigness is the thing, and it was reported that one flower in the exhibition measured 14 inches. There can be nothing refined in such monstrosities. They are nearly all of one type, too. What was introduced a few years ago as the Peony-flowered Dahlia is an offshoot of the old "decorative." The blooms were, at first, semi-double, but some which show an affinity with the Cactus-flowered type, have filled in considerably, and have become full double. One either wants a single or a double. Anything in between lacks decorative value. Very few have color value.

One exhibitor only set up a collection of the old "Show" varieties, and he probably grew them just for this exhibition, and the same may be said of the display of Pompons.

Mr. C. W. Brown and Mr. Hammond Tracy made displays of Gladioli, mostly varieties that were not in bloom in time for the regular show.

A comprehensive display of hardy flowers was sent by the Bay State Nurseries, which attracted much attention — a pleasant relief from the monotony of Dahlias.

"Paul Michael" (Dahlia) exhibited by A. E. Thatcher of the Upham Dahlia Gardens, Dorchester, Mass., was the only one the committee thought well enough of to honor with a special award. This was a large, perfectly formed flower, of bright orange color.

H. R. Comley had a very nice table decoration in which a basket of Pompon Dahlias was the feature.

Mrs. Hammond Tracy used Pompon Dahlias and Gladioli; both exhibits showed good taste.

AUTUMN SHOW, NOV. 2

Winter-flowering Begonias were again the feature of the fall Show. The plants shown by E. S. Webster and R. S. Bradley were well up to the mark. The varieties were about the same in both groups. "Pink Perfection," "Optima," "Exquisite," "Rose Queen," "Sunrise," "Lucy Clirbran," and "Flambeau."

Webster's Chrysanthemum group was well put up. The color effect was excellent. The daisy-like Chrysanthemum "Anna," white, and its yellow sport "Jane Harte," were most effectively used. Other notable varieties were: Yellow and white, "Garza," "Source d'Or," Maple Leaf," "Mary Richardson" and "Waverly Star."

Mrs. Homer Gage's decorative display of flowering and foliaged plants was nicely conceived, and well worked out, with palms, oak leaves and ferns as decorative material. Chrysanthemums provided most of the flowering, or flowers.

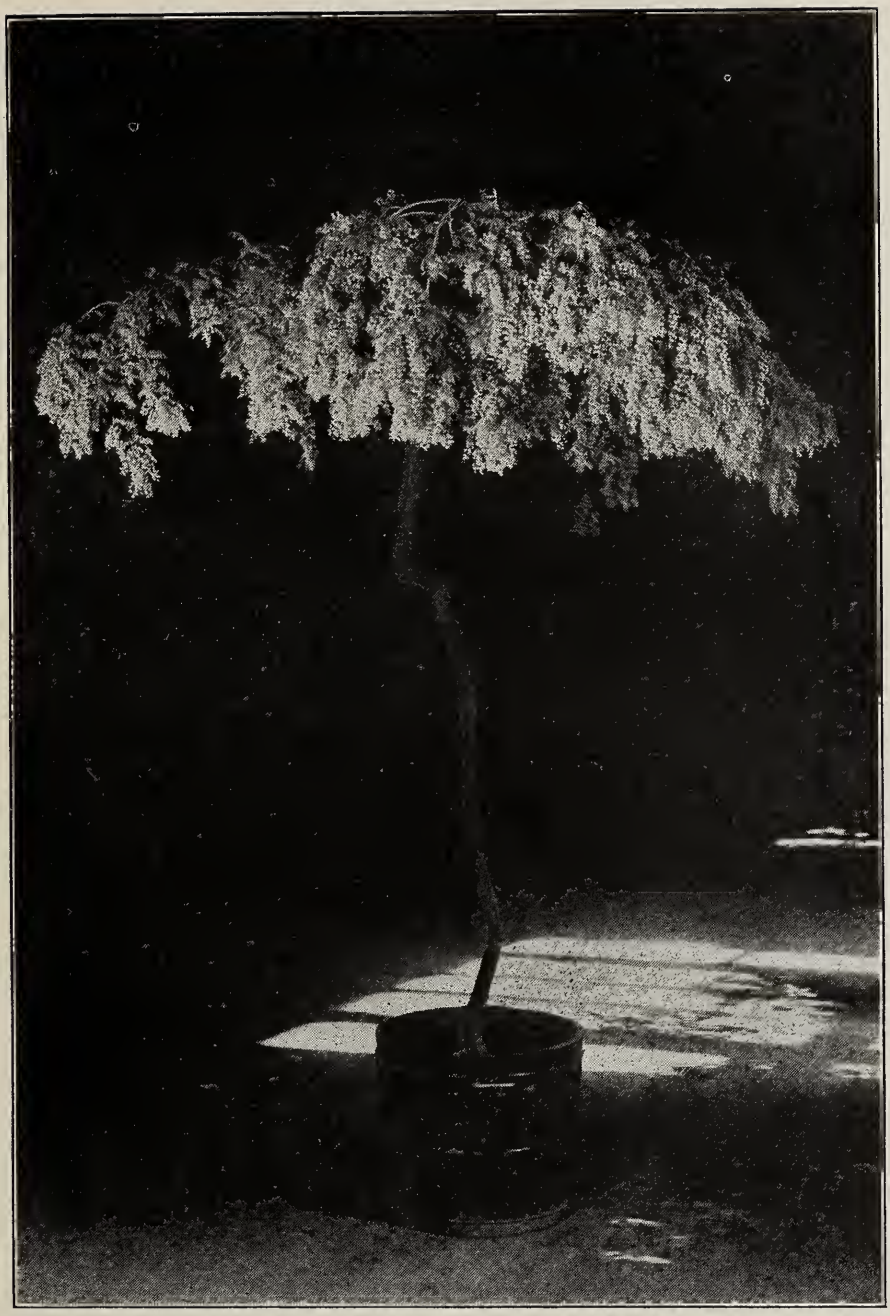
The Harvard Botanic Garden staged a neat lot of foliaged plants, Bromeliads being the feature. They were very interesting, and not often seen at exhibitions.

Carnations were excellent. C. B. Johnson of Woburn, Strout's of Biddeford, and S. J. Goddard of Framingham, were the principal exhibitors.

There were many seedlings entered without names—a doubtful practice. "Matchless" and "Harvester" were the best whites; "Laddie" and "Surprise" were best among the pinks. C. B. Johnson's varicolored "Peach" was very much admired. It is not striped, but yellow ground flushed and tipped with pink, much as in the old Picotee.

Strout's set up a collection of standard varieties, very nicely arranged, including "Irene," pink; "Improved Ward," and "Maine Sunshine."

R. & J. Farquhar Co. made a display of outdoor varieties of Chrysanthemums which are suitable for outdoor culture,



Specimen Acacia Exhibited by Thomas Roland
at the March Exhibition, 1923

and W. N. Craig showed varieties that had been grown wholly outdoors, both instructive exhibits.

F. W. Hunnewell put up a choice lot of Orchids nicely arranged, including Laelio-cattleya Gottoiana, Laelio-cattleya "Ariel," Laelio-cattleya "Wellesley," Laelio-cattleya "St. George," Oncidium ornithorynchum, Laelia elegans, Cypripedium "Olivia," Cattleya "Portia," and Vanda tricolor.

A. C. Burrage had a new Orchid of great beauty and variety of coloring, Cattleya Bowringiana v. liliacina x Cattleya Gaskelliana v. coerulescens. The flowers are almost wholly lavender, with deeper colored lip.

T. D. Hatfield, *Chairman.*

Report of the Committee on Fruit

This report must necessarily be very brief, owing to the death of Mr. Edward B. Wilder, chairman of the committee for many years, who undoubtedly had made numerous notes, and would have given an interesting and valuable report if he could have been here. The committee feels keenly the loss of Mr. Wilder, who never spared himself when a fruit show was to be staged at Horticultural Hall.

The special fruit and vegetable show held September 28, 29 and 30, was the big event of the year, and brought out a fine collection. The fruit was staged in the Lecture Hall. Some effort was made at decorative effects, but the results were not as satisfactory as had been hoped. At the same time the work, which was done in this respect will enable the committee to arrange more satisfactorily for displays at future shows.

The public seemed interested in an exhibition of packages demonstrating the manner in which small quantities of fruits could be shipped to city homes.

A display of home grown fruit made by Mr. John S. Doig was especially interesting because of the tropical fruits grown under glass which it included.

An unusually fine exhibition of seedling grapes was made by E. A. Adams, of West Medway. The first prize for the best collection of native grapes arranged for decorative effect, covering 12 linear feet, went to Hillcrest Gardens.

E. A. Pierce of Wellesley Farms won first for two handsome bunches of Black Hamburg grapes.

The Autumn Show, November 2, 3 and 4, also brought out a very large collection of apples, some of which were of superior quality. At this show Mr. A. C. Burrage displayed several bunches of hothouse grapes of unusual size and quality which attracted much attention.

This year the committee has made several changes in the schedule, eliminating pears and apples which did not bring out any exhibits in 1923.

ALBERT R. JENKS, *Chairman.*

Report of the Committee on Vegetables

During 1923 there were seven exhibitions where competitive classes were provided for vegetables. At the early shows the displays were rather small, but at the special fruit and vegetable show held in September and at the fall exhibition in November the competition was good and the quality of exhibits excellent. The great difference between the shows of today and those of 20 years ago is that while at the earlier shows most of the exhibitors were commercial men, at the present time nearly all are from private estates. The gradual elimination of commercial displays seems regrettable, and it would be well to carefully consider methods which might encourage them to once more support our shows.

The collections of vegetables arranged for effect have continued to bring out good competitions and have proved most attractive; artistically arranged displays of vegetables always interest the general public just as much as those of plants, flowers, or fruits, and as much or more skill is needed in their production, selection and proper staging as in any other branch of exhibits seen at our shows. During the present year the schedule provides for five competitive exhibitions for vegetables, but a specially good list of classes has been arranged

for the Dahlia and late October shows, which it is believed will bring out excellent displays.

The two large groups of vegetables staged at the September and November shows by Joseph Breck & Sons Corp. have proved star attractions and it is encouraging to know that we will see more of these noteworthy displays. Not only do these greatly interest the general public but they are a splendid advertisement for the public-spirited firm making them. Your committee does not recall any occasion when the gold medal of this Society has been awarded for a vegetable display, but they have earnest hopes that the present year may bring out something of such outstanding excellence that it may be deemed worthy of the highest award in the giving of the Society.

The W. B. H. Dowse silver trophy for the exhibitor winning the greatest number of points in the vegetable classes was awarded to Mr. Arthur Lyman, George F. Stewart, superintendent, who showed consistently and well during the past year. More classes than formerly are scheduled for collections during 1924 and it is believed these will bring out specially fine displays. Considering the extreme dryness of the 1923 growing season we feel that the vegetable exhibits were unusually good.

The Massachusetts Horticultural Society is now fortunate in owning HORTICUTURE and it behooves members of the Society to support this paper with short, pithy articles; the management will, we feel sure, be glad to receive suggestions for its improvement. At present vegetables and fruits are practically ignored, even the splendid fruit and vegetable show held last September was not even mentioned. Vegetables and fruits are of greater importance to many of our members than plants and flowers, and if the latter only are to receive mention in the magazine it would be better to change the name to Floriculture. These criticisms are offered in the most friendly spirit and with a sincere desire to improve our official organ. Our paper should also give good reports of our exhibitions with the prizes awarded, and not make it necessary for members to purchase other magazines published hundreds of miles away to find them.

WILLIAM N. CRAIG, *Chairman.*

Report of the Committee on Children's Gardens

The annual exhibition of Children's Garden products held on August 25 and 26 was very much smaller than usual. While the dates selected were a little too early, the real cause for the smallness of the displays of vegetables was the abnormally dry weather which had persisted through practically the entire summer. As the great bulk of the regular exhibitors are in the cities, as the soil in the little gardens is nearly in every case poor and lacking in humus matter, and water in the majority of cases has to be carried considerable distances, it was not strange that exhibits showed a sharp shrinkage. The quality of the exhibits was particularly good, and it was pleasing to note the continued care take in the selection of specimens as compared with even five years ago. The attendance of the public was good, and great numbers of children came and seemed to take a keen interest in the displays. Brockton, as usual, proved to be a tower of strength to the show, the ever enthusiastic school garden leader there, Miss Burke, deserves our warmest thanks for the interest she continues to manifest in our Children's Garden shows.

The display of flowers, while good, was small compared with preceding years. On the other hand the exhibit of native flowers was a splendid one, the two largest displays containing from 400 to 500 vases of flowers each. The naming of these deserved special commendation and might well serve as an object lesson to the adult exhibitors at the other exhibitions of the Society.

Your committee considers the schedule of premiums as offered in 1923 well varied and sufficiently attractive to ensure a very much better exhibition during the present year. They believe it would prove helpful to have a short conference of school garden teachers and children in the small hall while the judges are making their awards. An interchange of ideas, and many helpful suggestions should come from such a meeting. It is of vital importance to endeavor in every legitimate way to hold the interest of the rising generation in gardening. It will assist in no small measure in turning the tide of population from the over-congested cities to the country districts—a consummation devoutly to be wished.

WILLIAM N. CRAIG,
For Committee on Children's Gardens.

Membership in the Massachusetts Horticultural Society

The constitution of the Massachusetts Horticultural Society fixes the annual dues at $2.00. For many years it has been customary to charge an admission fee of $10.00, but by vote of the Trustees this requirement has been set aside for the entire year of 1924. Until the end of this year the only charge to new members will be $2.00, although this sum does not cover the cost to the Society of the publications which they will receive.

Life membership is obtained by paying the sum of $30.00, no further charge ever being required. Annual members who have paid the entrance fee of $10.00 in past years may become life members by paying $20.00 additional.

All members receive an identification card and a handsomely engraved certificate of membership. The card should be presented when books are borrowed from the library.

Any man or woman in any part of the country who is properly endorsed may make application for membership. Many new members are needed in order to increase the influence of the Society, and to broaden the scope of its work.

Application blanks may be obtained by writing to

The Secretary,
Horticultural Hall,
Boston, Mass.

NOTE:—The secretary is glad to have present members send in the names of friends who might like to become enrolled.

New Life Members

The following life members were added to the Society in 1923:

Mrs. Richard C. Cabot, Cambridge
Miss Mabel Choate, Stockbridge
Hon. Alvan T. Fuller, Boston
Stephen F. Hamblin, Lexington
James M. Howe, Jr., Daytona, Florida
Mrs. Charles Keyes, Groton
Arthur W. Lippincott, Stockbridge
Mrs. Lindsley Loring, Westwood
Mrs. Charles W. McKelvey, Orange, New Jersey
Harold J. Patten, Tewksbury
Charles Sumner Pierce, Milton
Harry Quint, Boston
Mrs. Jennie A. Richardson, Waltham
Mrs. E. S. Rousmaniere, Boston
Mrs. Ellery Sedgwick, Boston
Mrs. Gertrude I. Titus, Swampscott
Miss Mary C. Wheelwright, Boston

New Annual Members

The following annual members were added to the Society in 1923:

Miss E. W. Biddle, Lenox
Mrs. James Geddes, Brookline
Walter E. High, Manchester, New Hampshire
Frederic C. Hood, Brookline
Mrs. Edward W. Hutchins, Boston
John Robert Johnston, Jamaica Plain
Mrs. Charles B. Manning, Manchester, New Hampshire
Horace B. Parker, Boston
Miss Grace M. Payson, Magnolia
Edwin Sexton, Elsmere, New York
Harold Stevens, Salem
Austin E. Thatcher, Dorchester

Necrology

The following is a list of the members of the Massachusetts Horticultural Society who have died during the year 1923:

January 25.	Henry M. Whitney.
February 7.	George A. Draper.
February 12.	Osborn B. Hall.
February 16.	Thomas J. Grey.
March 2.	J. Henry Fletcher.
March 10.	Mrs. William Caleb Loring.
March 18.	George E. Crosby.
March 20.	George D. Moore.
March 22.	W. Prentiss Parker.
April 4.	William Percival Edgar.
April 21.	Horace S. Sears.
May 3.	Miss Isabel M. Crompton.
May 14.	William Fenwick Harris.
May.	Thomas P. Beal.
June 6.	Mrs. E. M. Lancaster.
August 1.	George C. Waltham.
August 7.	David P. Kimball.
August 20.	Stephen P. Sharples.
August 26.	Alfred D. Chandler.
September 17.	E. B. Mallett, Jr.
September 18.	George H. Doty.
September 28.	Loren D. Towle.
October 8.	Donald Gordon.
October 20.	Bayard Tuckerman.
October 25.	Edward MacMulkin.
November 14.	Edward Baker Wilder.
November 16.	Miss Eleanor J. Clark.

Members of the Massachusetts Horticultural Society

Revised to January 1, 1924

HONORARY MEMBERS

Members and correspondents of the Society and all other persons who may know of deaths, changes of residence, or other circumstances showing that the following lists are inaccurate in any particular, will confer a favor by promptly communicating to the Secretary the needed corrections.

1900 Dr. Henry S. Pritchett, New York.
1900 Albert Viger, President of the National Society of Horticulture of France, Paris.

CORRESPONDING MEMBERS

1921 J. F. Bailey, Director of the Botanic Gardens, Adelaide, South Australia.
1889 Dr. L. H. Bailey, Ithaca, N. Y.
1875 Professor William J. Beal, Amherst, Mass.
1911 W. J. Bean, Royal Botanic Gardens, Kew, England.
1918 Désiré Bois, Paris, France.
1922 Joseph Edgar Chamberlin, Boston.
1918 Léon Chenault, Orléans, France.
1921 F. J. Chittenden, F.L.S., R.H.S. Gardens, Surrey, England.
1921 Alister Clark, Glenara, Bulla, Victoria.
1921 Dr. L. Cockayne, Wellington, New Zealand.
1911 John Dunbar, Park Department, Rochester, N. Y.
1887 Sir W. T. Thiselton Dyer, K.C.M.G., F.R.S., "Whitcombe," Gloucester, England.

1921 W. R. Dykes, Secretary of the Royal Horticultural Society, London, England.
1918 William C. Egan, Highland Park, Ill.
1918 Bertrand H. Farr, Wyomissing, Pa.
1900 Dr. Beverly T. Galloway, Department of Agriculture, Washington, D. C.
1918 Professor N. E. Hansen, Brookings, So. Dak.
1911 Professor U. P. Hedrick, New York Agricultural Experiment Station, Geneva, N. Y.
1907 Augustine Henry, F.L.S., M.R.I.A., Professor of Forestry, Royal College of Science, Dublin, Ireland.
1919 Lt.-Col. Sir George Holford, Tetbury, Gloucestershire, England.
1918 Charles L. Hutchinson, Chicago, Ill.
1906 Senor Don Salvador Izquierdo, Santiago, Chile.
1918 Mrs. Francis King, Alma, Mich.
1921 C. E. Lane-Poole, Conservator of Forests, Perth, Western Australia.
1911 Émile Lemoine, Nancy, France.
1918 J. Horace McFarland, Harrisburg, Pa.
1921 J. H. Maiden, I.S.O., F.R.S., F.L.S., Director and Government Botanist, Sydney, New South Wales.
1875 T. C. Maxwell, Geneva, N. Y.
1911 Wilhelm Miller, Detroit, Mich.
1898 Sir Frederick W. Moore, Glasnevin, Dublin, Ireland.
1918 Dr. George T. Moore, Director of the Missouri Botanical Garden, St. Louis, Mo.
1887 Sir Daniel Morris, C.M.G., D.Sc., M.A., F.L.S.
1919 Séraphin Joseph Mottet, Verrières-le-Buisson (Seine-et-Oise), France.
1912 C. Harman Payne, London, England.
1906 Lt.-Col. Sir David Prain, C.I.E., C.M.G., F.R.S., Kew, England.
1894 Cavalière Enrico Ragusa, Palermo, Sicily.
1906 Dr. Henry L. Ridley, C.M.G., F.R.S., Kew, England.
1898 Benjamin Lincoln Robinson, Ph.D., Curator of the Gray Herbarium of Harvard University, Cambridge, Mass.
1875 William Robinson, East Grinstead, Sussex, England.
1921 Leonard Rodway, C.M.G., Government Botanist and Secretary, Botanic Gardens, Hobart, Tasmania.
1919 Eugène Schaettel, Paris, France.
1921 David Tannock, Superintendent, Botanic Gardens, Dunedin, New Zealand.
1893 Professor William Trelease, University of Illinois, Urbana, Illinois.

1882 Sir Harry J. Veitch, Chelsea, England.
1921 Jacques de Vilmorin, Paris, France.
1912 Professor Hugo de Vries, University of Amsterdam, Amsterdam, Holland.
1918 F. Gomer Waterer, Bagshot, Surrey, England.
1894 William Watson, Kew, England.
1919 J. C. Williams, Gorran, Cornwall, England.
1906 Miss E. Willmott, Essex, England.
1911 E. H. Wilson, Jamaica Plain, Mass.
1921 Gurney Wilson, F.L.S., Richmond, Surrey, England.
1901 Professor L. Wittmack, Secretary of the Royal Prussian Horticultural Society, Berlin, Prussia.

LIFE MEMBERS

1899 Adams, Mrs. Charles Francis, South Lincoln.
1907 Adams, George E., Kingston, R. I.
1897 Adams, Henry Saxton, Jamaica Plain.
1899 Agassiz, Mrs. George R., Boston.
1922 Alexandre, Mrs. John E., Lenox.
1894 Allen, Hon. Charles H., Lowell.
1916 Allen, Edward Ellis, Watertown.
1905 Allen, Mrs. Sarah R., Wilmington.
1898 Allen, Thomas, Boston.
1921 Allison, Frank H., Auburndale.
1914 Ames, Mrs. F. L., North Easton.
1899 Ames, John S., North Easton.
1894 Ames, Oakes, North Easton.
1899 Ames, Oliver, North Easton
1867 Amory, Frederic, Boston.
1920 Andersen, Peter, Woburn.
1896 Anderson, George M., Milton.
1899 Anderson, Larz, Brookline.
1911 Anderson, William, South Lancaster.
1871 Appleton, Hon. Francis H., Boston.
1914 Appleton, Francis R., New York, N. Y.
1913 Appleton, Henry Saltonstall, Boston.
1914 Apthorp, Mrs. Harrison O., Milton.
1900 Arnold, Mrs. George Francis, Brookline.
1894 Ash, John, Pomfret Centre, Conn.
1890 Atkins, Edwin F., Belmont.
1899 Ayer, James B., Boston.

1912 Bache, James S., Sharon, Conn.
1905 Backer, Clarence A., Melrose.
1914 Bacon, Miss E. S., Jamaica Plain.
1905 Badger, Walter I., Cambridge.
1902 Bailey, Robert M., Dedham.
1902 Baker, Clifton P., Dedham.
1901 Baker, James E., South Lincoln.
1904 Balch, Joseph, Dedham.
1909 Baldwin, Frank F., Ashland.
1888 Barber, J. Wesley, Newton.
1905 Barnard, George E., Ipswich.
1866 Barnes, Walter S., Brookline.
1898 Barr, John, South Natick.
1917 Barrett, Mrs. William Emerson, West Newton.
1897 Barry, John Marshall, Boston.
1901 Bartlett, Miss Mary F., Boston.
1914 Bartol, Dr. John W., Boston.

1915 Bartsch, Hermann H., Waverley.
1901 Bates, Miss Mary D., Ipswich.
1915 Bauernfeind, John, Medford.
1899 Baylies, Walter C., Taunton.
1914 Beal, Mrs. Boylston, Boston.
1891 Becker, Frederick C., Cambridge.
1876 Beckford, Daniel R., Jr., Dedham.
1894 Beebe, E. Pierson, Boston.
1890 Beebe, Franklin H., Boston.
1905 Bemis, Frank B., Boston.
1914 Bemis, Mrs. Frank B., Boston.
1899 Bigelow, Albert S., Boston.
1914 Bigelow, Charles, Newtonville.
1899 Bigelow, Joseph S., Cohasset.
1899 Bigelow, Dr. William Sturgis, Boston.
1899 Black, George N., Boston.
1885 Blake, Mrs. Arthur W., Brookline.
1914 Blake, Benjamin S., Auburndale.
1897 Blake, Edward D., Boston.
1919 Blake, Hallie C., Lexington.
1919 Blake, Kenneth Pond, Lexington.
1918 Blanchard, Archibald, Boston.
1921 Blood, Charles O., Lynnfield Center.
1921 Blood, Mrs. Charles O., Lynnfield Center.
1908 Blood, Eldredge H., Swampscott.
1905 Boardman, Miss Eliza D., Boston.
1914 Boit, Miss Elizabeth E., Wakefield.
1883 Bowditch, James H., Brookline.
1894 Bowditch, Nathaniel I., Framingham.
1877 Bowditch, William E., Roxbury.
1913 Brackett, C. Henry B., So. Natick.
1914 Brandegee, Mrs. Edward D., Brookline.
1873 Breck, Charles H., Newton.
1900 Breck, Joseph Francis, Waban.
1914 Breck, Luther Adams, Newton.
1902 Breed, Edward W., Clinton.
1871 Bresee, Albert, Hubbardton, Vt.
1914 Brewer, Edward M., Milton.
1914 Brewer, Joseph, Milton.
1918 Brewer, William C., Newton Centre.
1919 Briggs, George E., Lexington.
1910 Briggs, Mrs. George R., Plymouth.
1897 Briggs, William S., Lincoln.
1873 Brigham, William T., Honolulu, Hawaii.
1909 Brooke, Edmund G., Jr., Providence, R. I.
1914 Brooks, Henry G., Milton.
1912 Brooks, Walter D., Milton.
1909 Brown, Mrs. John Carter, Providence, R. I.
1907 Brush, Charles N., Brookline.
1919 Buff, Louis F., Jamaica Plain.
1906 Buitta, Vincent, Newton Upper Falls.
1914 Bullard, Alfred M., Milton.
1922 Bullard, Mrs. William Norton, Boston.
1918 Burgess, George Arthur, Marblehead.
1920 Burgess, William H., Lexington.

1897 Burlen, William H., East Holliston.
1895 Burnett, Harry, Southborough.
1911 Burnett, John T., Southborough.
1914 Burnett, Robert M., Southborough.
1914 Burnham, Miss Helen C., Boston.
1909 Burr, I. Tucker, Milton.
1906 Burrage, Albert C., Boston.
1919 Burrage, Mrs. Albert C., Boston.
1918 Burrage, Albert C., Jr., Hamilton.
1918 Burrage, Charles D., Boston.
1921 Burrage, Harry L., Boston.
1918 Burrage, Russell, Beverly Farms.
1907 Butterworth, George William, South Framingham.
1906 Butterworth, J. Thomas, So. Framingham.
1921 Butterworth, Miss Rachel, Framingham.
1905 Buttrick, Stedman, Concord.

1902 Cabot, George E., Boston.
1914 Cabot, Henry B., Brookline.
1923 Cabot, Mrs. Richard C, Cambridge.
1896 Cameron, Robert, Ipswich.
1913 Campbell, Chester I., Wollaston.
1891 Campbell, Francis, Cambridge.
1899 Casas, W. B. de las, Malden.
1911 Case, Miss Marian Roby, Weston.
1918 Chalifoux, Mrs. H. L., Prides Crossing.
1873 Chamberlain, Chauncy W., Waban.
1909 Chamberlain, Montague, Boston.
1920 Chandler, Joseph Everett, Boston.
1903 Chapman, John L., Prides Crossing.
1917 Chase, H. F., Andover.
1909 Chase, Philip Putnam, Milton.
1923 Choate, Miss Mabel, Stockbridge.
1921 Chubbuck, William H., Mattapan.
1876 Clapp, Edward B., Dorchester.
1919 Clapp, Robert P., Lexington.
1896 Clark, B. Preston, Cohasset.
1907 Clark, Herbert A., Belmont.
1890 Clark, J. Warren, Millis.
1919 Clark, William Edwin, Sharon.
1922 Clarkson, Mrs. Banyer, Tyringham.
1914 Clifford, Charles P., Milton.
1895 Clough, Micajah Pratt, Lynn.
1894 Cobb, John C., Milton.
1906 Codman, Miss Catherine A., Westwood.
1914 Codman, James M., Brookline.
1903 Cogswell, Edward R., Jr., Newton Highlands.
1914 Collins, William J., Brookline.
1917 Comley, Henry R., Lexington.
1902 Comley, Norris F., Lexington.
1921 Conant, Mrs. Nellie F., Boston.
1917 Converse, E. W., Newton.
1913 Cook, Thomas N., Watertown.
1917 Cooley, Arthur N., Pittsfield.
1914 Coolidge, Charles A., Boston.
1902 Coolidge, Harold J., Boston.

1899 Coolidge, J. Randolph, Chestnut Hill.
1919 Copeland, Miss E. Gertrude, Melrose.
1914 Cotting, Mrs. Charles E., Boston.
1892 Cottle, Henry C., Boston.
1917 Cotton, Miss Elizabeth A., Brookline.
1914 Councilman, Dr. W. T., Boston.
1917 Cowey, S. R., York Harbor, Maine.
1913 Cox, Simon F., Mattapan.
1914 Crafts, Miss Elizabeth S., New York, N. Y.
1920 Craig, Mrs. Helen M., Boston.
1901 Craig, William Nicol, Weymouth.
1917 Crane, Charles R., New York, N. Y.
1917 Crane, Mrs. R. T., Jr., Chicago, Ill.
1891 Crawford, Dr. Sarah M., Newton Centre.
1881 Crosby, J. Allen, Jamaica Plain.
1914 Crosby, Mrs. S. V. R., Boston.
1901 Cross, Alfred Richard, North Cohasset.
1921 Crowninshield, Benjamin W., Marblehead.
1921 Crowninshield, Francis B., Boston.
1921 Crowninshield, Mrs. Francis B., Boston.
1909 Cumner, Mrs. Nellie B., Boston.
1856 Curtis, Charles F., Jamaica Plain.
1899 Curtis, Charles P., Boston.
1875 Curtis, Joseph H., Boston.
1920 Curtiss, Frederic Haines, Boston.
1906 Cutler, Mrs. Charles F., Boston.
1919 Cutler, Clarence H., Lexington.
1922 Cutler, Mrs. N. P., Newton.
1903 Cutler, Judge Samuel R., Revere.

1897 Damon, Frederick W., Arlington.
1908 Dane, Ernest B., Brookline.
1908 Dane, Mrs. Ernest B., Brookline.
1919 Danforth, Joseph A., Danvers.
1899 Daniels, Dr. Edwin A., Boston.
1909 Danielson, Mrs. J. DeForest, Boston.
1902 Davis, Mrs. Arthur E., Dover.
1913 Davis, Bancroft Chandler, Weston.
1889 Davis, Frederick S., West Roxbury.
1916 Davis, Miss Helen I., Wellesley.
1914 Davis, Livingston, Milton.
1909 Dawson, Henry Sargent, Holliston.
1905 Day, Henry B., West Newton.
1917 Day, Mrs. Mary E., Newton.
1921 De Nave, Paul, Wellesley.
1873 Denny, Clarence H., Boston.
1917 Dexter, George T., Boston.
1904 Dexter, Gordon, Beverly Farms.
1904 Dexter, Philip, Boston.
1921 Dodd, Dexter T., Hudson.
1922 Dodge, Mrs. Edwin Sherrill, Westwood.
1896 Donald, William, Cold Spring Harbor, N. Y.
1900 Donaldson, James, Roxbury.

1897 Dorr, George B., Bar Harbor, Me.
1907 Doten, Scott T., Acton.
1914 Douglass, Alfred, Brookline.
1917 Downs, Jere Arthur, Winchester.
1910 Downs, William, Chestnut Hill.
1917 Dowse, Charles F., Boston.
1893 Dowse, William B. H., West Newton.
1917 Draper, B. H. Bristow, Hopedale.
1920 Draper, Eben S., Hopedale.
1897 Dumaresq, Herbert, Chestnut Hill.
1899 Duncan, James L., New York, N. Y.
1902 Duncan, John W., Spokane, Wash.
1896 Dunlap, James H., Nashua, N. H.
1915 Dunn, Stephen Troyte, F.L.S., F.R.G.S., Twickenham, Eng.
1915 Dupee, William Arthur, Milton.
1909 Dupuy, Louis, Whitestone. L. I., N. Y.
1880 Dutcher, Frank J., Hopedale.
1917 Dutcher, Miss Grace M., Hopedale.
1902 Dyer, Herbert H., Arlington.

1912 Eaton, Harris D., Southborough.
1918 Eccleston, Douglas, Beverly Farms.
1911 Edgar, Mrs. Rose H., Waverley.
1895 Eldredge, H. Fisher, Boston.
1921 Ellery, William, Brookline.
1921 Ellery, Mrs. William, Brookline.
1887 Elliott, Mrs. John W., Boston.
1888 Elliott, William H. Brighton.
1907 Emerson, Nathaniel W., M. D., Boston.
1922 Emery, Miss Georgia H., Newton.
1917 Emmons, Mrs. R. M., 2nd, Boston.
1894 Endicott, William, Boston.
1899 Endicott, William C., Danvers.
1919 Endicott, Mrs. William C., Danvers.
1919 Endicott, Mrs. William C., Jr., Danvers.
1919 Engstrom, Richard, Lexington.
1915 Ernst, Mrs. Harold C., Jamaica Plain.
1907 Eustis, Miss Elizabeth M., Brookline.
1907 Eustis, Miss Mary St. Barbe, Brookline.

1915 Fairbanks, Charles F., Milton.
1881 Fairchild, Charles, New York, N. Y.
1877 Falconer, William, Pittsburg, Pa.
1884 Farlow, Lewis H., Boston.
1896 Farnsworth, Mrs. William, Dedham.
1915 Farquhar, Mrs. John K. M. L., Roxbury.
1884 Farquhar, Robert, North Cambridge.
1917 Farr, Mrs. Betty K., Stoneham.
1908 Fay, Wilton B., West Medford.
1914 Fearing, George R., Jr., Boston.

1917 Fenno, Mrs. Pauline Shaw, Rowley.
1917 Fessenden, Sewell H., Boston.
1883 Fewkes, Arthur H., Newton Highlands.
1904 Finlayson, Duncan, Jamaica Plain.
1892 Finlayson, Kenneth, Jamaica Plain.
1901 Fisher, Peter, Ellis.
1901 Fiske, Harry E., Wollaston.
1894 FitzGerald, Desmond, Brookline.
1910 Flanagan, Joseph F., Newton.
1882 Fletcher, George C., Belmont.
1917 Foot, Nathan Chandler, M. D., Milton.
1914 Forbes, Alexander, M.D., Milton.
1909 Forbes, Charles Stewart, Boston.
1909 Forbes, Mrs. J. Malcolm, Milton.
1914 Forbes, W. Cameron, Westwood.
1909 Forbes, Mrs. William H., Milton.
1917 Fosdick, Lucian J., Boston.
1914 Foster, Alfred D., Milton.
1899 Foster, Charles H. W., Needham.
1917 Foster, Miss Fanny, Newport, R. I.
1885 Fottler, John, Jr., Dorchester.
1914 Fraser, Charles E. K., South Natick.
1910 French, Mrs. Albert M., Reading.
1893 French, W. Clifford, Pasadena, Calif.
1917 Frishmuth, Miss Anna Biddle, Boston.
1903 Frost, Harold L., Arlington.
1900 Frost, Irving B., Belmont.
1922 Frost, Paul, Cambridge.
1899 Frothingham, Mrs. Louis A., North Easton.
1923 Fuller, Hon. Alvan T., Boston.

1917 Gage, Mrs. Homer, Worcester.
1920 Gale, Herbert E., Swampscott.
1910 Galloupe, Frederic R., Lexington.
1914 Gardiner, Robert H., Gardiner, Maine.
1901 Gardner, Mrs. Augustus P., Hamilton.
1895 Gardner, George P., Boston.
1899 Gardner, John L., Boston.
1899 Gardner, Mrs. John L., Boston.
1899 Gardner, William Amory, Groton.
1904 Garratt, Allan V., Holliston.
1899 Gaston, William A., Boston.
1911 Gavin, Frank D., Manchester.
1910 Geiger, Albert, Jr., Brookline.
1911 Gill, Miss Adeline Bradbury, Boston.
1911 Gill, Miss Eliza M., Boston.
1887 Gill, George B., Boston.
1919 Gilmore, George L., Lexington.
1907 Goddard, Samuel J., Framingham.
1922 Godfrey, Mrs. Hollis, Duxbury.
1921 Goodale, Geoffrey D., Boston.
1904 Goodale, Dr. Joseph L., Boston.
1899 Gray, Mrs. John C., Boston.

1914 Greene, Edwin Farnham, Boston.
1905 Greenough, Mrs. Charles P., Brookline.
1912 Greenough, Mrs. David S., Jamaica Plain.
1914 Grew, Edward W., Boston.
1919 Griffin, Arthur E., Marion.

1897 Hale, James O., Byfield.
1910 Hale, Mrs. Swinburne, New York, N. Y.
1873 Hall, Edwin A., Cambridgeport.
1912 Hall, Mrs. George G., Boston.
1899 Hall, Jackson E., Cambridge.
1910 Halloran, Edward J., Newton Highlands.
1923 Hamblin, Stephen F., Lexington.
1917 Hammond, Mrs. E. C., Auburndale.
1914 Harding, Charles L., Dedham.
1918 Harding, Mrs. Edward, Plainfield, N. J.
1889 Hargraves, William J., Jamaica Plain.
1887 Harris, Thaddeus William A. M., Littleton, N. H.
1909 Hart, Francis R., Milton.
1914 Hartt, Arthur W., Brookline.
1895 Harwood, George Fred, Newton.
1884 Hastings, Levi W., Brookline.
1894 Hatfield, T. D., Wellesley.
1914 Havemeyer, Theodore A., New York, N. Y.
1922 Haynes, Edmund B., Boston.
1899 Hayward, George P., Chestnut Hill.
1914 Hayward, H. T., Franklin.
1905 Head, Thomas W., Red Bank, N. J.
1913 Heeremans, F., Lenox.
1903 Hellier, Charles E., Boston.
1888 Hemenway, Augustus, Boston.
1899 Hemenway, Mrs. Augustus, Boston.
1914 Hemenway, Augustus, Jr., Boston.
1884 Henshaw, Joseph P. B., Boston.
1899 Henshaw, Samuel, Cambridge.
1901 Heurlin, Julius, South Braintree.
1922 Heurlin, Victor J., South Braintree.
1891 Heustis, Warren H., Belmont.
1894 Hewett, Miss Mary Crane, Cambridge.
1900 Higginson, Francis L., Boston.
1902 Higginson, Mrs. Henry L., Boston.
1886 Hittinger, Jacob, Belmont.
1895 Hoitt, Hon. Charles W., Scituate.
1918 Holbrook, Miss Grace Ware, Brattleboro, Vt.
1914 Hollingsworth, Valentine, Boston.
1899 Hollingsworth, Z. T., Boston.
1891 Holmes, Edward J., Boston.
1900 Holt, William W., Norway, Maine.
1899 Hood, Lady Ellen, Sheen, Surrey, Eng.
1922 Hopkinton, Mrs. Charles, Manchester.
1914 Hornblower, Henry, Boston.
1922 Horsford, Miss Cornelia C. F., Cambridge.
1888 Horsford, Miss Kate, Cambridge.

1902 Hosmer, Oscar, Baldwinsville.
1907 Houghton, Clement S., Chestnut Hill.
1913 Houghton, Mrs. Clement S., Chestnut Hill.
1910 Houghton, Miss Elizabeth G., Boston.
1872 Hovey, Charles H., South Pasadena, Cal.
1884 Hovey, Stillman S., Woburn.
1917 Howard, Everett C., Belchertown.
1904 Howard, Henry M., West Newton.
1896 Howard, Joseph W., Somerville.
1923 Howe, James M., Jr., Daytona, Fla.
1915 Howes, Mrs. Ernest, Boston.
1917 Howes, Osborne, Chestnut Hill.
1896 Hubbard, Charles Wells, Weston.
1917 Hubbard, Eliot, Cambridge.
1893 Hubbard, F. Tracy, Brookline.
1913 Huebner, H., Groton.
1917 Hunnewell, Mrs. Arthur, Wellesley.
1912 Hunnewell, F. W., Wellesley.
1893 Hunnewell, Henry Sargent, Wellesley.
1912 Hunnewell, Mrs. Henry S., Wellesley.
1922 Hunnewell, Miss Louisa, Boston.
1912 Hunnewell, Walter, Wellesley.
1917 Hunt, Miss Belle, Boston.
1919 Hunt, William, Lexington.
1880 Hunt, William H., Belmont.

1919 I'Anson, George, Beverly Farms.
1893 Jack, John George, East Walpole.
1886 Jackson, Charles L., Boston.
1914 Jackson, Mrs. James, Jr., Westwood.
1884 Jackson, Robert T., Peterborough, N. H.
1916 Jahn, Paul H., East Bridgewater.
1916 Jahn, William O., East Bridgewater.
1902 James, Ellerton, Milton.
1902 James, Mrs. Ellerton, Milton.
1913 Jeffries, John, 5th, Philadelphia, Pa.
1899 Jeffries, William A., Boston.
1865 Jenks, Charles W., Bedford.
1905 Johnson, Arthur S., Boston.
1921 Johnson, C. B., Woburn.
1914 Johnson, Edward C., Boston.
1885 Johnson, J. Frank, Malden.
1922 Jones, Miss Eleanor P., Haverhill.
1897 Jones, Dr. Mary E., Boston.
1922 Judd, William H., Jamaica Plain.

1920 Keith, Simeon C., Brookline.
1897 Kellen, William V., Marion.
1898 Kelsey, Harlan P., Salem.
1891 Kendall, Dr. Walter G., Atlantic.
1898 Kennard, Frederic H., Newton Centre.
1909 Kennedy, Harris, M.D., Milton.
1905 Keyes, Mrs. Emma Mayer, Boston.
1923 Keyes, Mrs. Charles, Groton.
1891 Keyes, John M., Concord.
1889 Kidder, Charles A., Southborough.
1910 Kidder, Mrs. Henry P., Boston.
1880 Kidder, Nathaniel T., Milton.

1903 Kimball, Richard D., Waban.
1899 Kinney, H. R., Worcester.
1906 Kinnicutt, Mrs. Leonard P., Worcester.
1904 Kirkland, Archie Howard, Reading.

1899 Lamb, Horatio A., Milton.
1913 Lancaster, Dr. Walter B., Newton Centre.
1899 Lanier, Charles, Lenox.
1917 Lapham, Henry G., Brookline.
1920 Lauriat, Charles E., Jr., West Newton.
1895 Lawrence, Amos A., New York, N. Y.
1873 Lawrence, John, Groton.
1899 Lawrence, Rt. Rev. William, Boston.
1914 Lee, George C., Westwood.
1880 Leeson, Hon. Joseph R., Newton Center.
1920 Leigh, Mrs. George Taylor, North Cohasset.
1902 Leighton, George B., Monadnock, N. H.
1914 Leland, Lester, Boston.
1914 Leland, Mrs. Lester, Boston.
1903 Libby, Charles W., Medford.
1917 Liggett, Louis K., Chestnut Hill.
1922 Linder, John Farlow, Canton.
1923 Lippincott, Arthur H., Stockbridge.
1899 Locke, Isaac H., Belmont.
1891 Lodge, Richard W., Redlands, Cal.
1897 Loomis, Elihu G., Bedford.
1899 Loring Augustus P., Prides Crossing.
1919 Loring, Augustus P. Jr., Prides Crossing.
1919 Loring, Mrs. A. P., Prides Crossing.
1914 Loring, Miss Katharine P., Prides Crossing.
1923 Loring, Mrs. Lindsley, Westwood.
1914 Loring, Miss Louisa P., Prides Crossing.
1896 Loring, William Caleb, Prides Crossing.
1921 Loveless, Alfred J., Lenox.
1899 Lowell, Abbott Lawrence, Cambridge.
1902 Lowell, Miss Amy, Brookline.
1903 Lowell, James A., Chestnut Hill.
1904 Lowell, Miss Lucy, Boston.
1899 Luke, Otis H., Brookline.
1895 Lunt, William W., Hingham.
1918 Lyman, Arthur, Boston.
1914 Lyman C. Frederic, Boston.
1895 Lyman, George H., Wareham.

1898 Mabbett, George, Plymouth.
1919 McGregor, Frank J., Newburyport.
1912 McKay, Alexander, Jamaica Plain.
1922 McKee, Mrs. William L., Boston.
1923 McKelvey, Mrs. Charles W., Orange, N. J.
1911 McKenzie, Donald, Chestnut Hill.
1920 Manda, Joseph, West Orange, N. J.
1884 Manda, W. A., South Orange, N. J.
1890 Manning, A. Chandler, Wilmington.
1887 Manning, J. Woodward, Reading.
1884 Manning, Warren H., North Billerica.

1909 Marlborough, James, Topsfield.
1876 Marshall, Frederick F., Everett.
1898 Marston, Howard, Brookline.
1917 Martin, Edwin S., Chestnut Hill.
1899 Mason, Miss Ellen F., Boston.
1919 Mason, Miss Fanny P., Boston.
1896 Mason, Col. Frederick, Taunton.
1922 Mason, Henry Lowell, Boston.
1914 Mathews, Miss Elizabeth Ashby, Newton Center
1901 Matthews, Nathan, Boston.
1906 Maxwell, George H., Newton.
1917 Mead, Francis V., West Somerville.
1917 Meader, H. E., Dover, N. H.
1902 Melvin, George, South Framingham.
1905 Meredith, J. Morris, Topsfield.
1919 Merriam, Edward P., Lexington.
1881 Merriam, Herbert, Weston.
1917 Methven, James, Brookline.
1884 Metivier, James, Waltham.
1922 Mezit, Peter J., Weston.
1914 Miller, Peter M., Mattapan.
1888 Milmore, Mrs. Joseph, Washington, D. C.
1917 Mink, Oliver W., Boston.
1915 Minot, Mrs. Charles S., Readville.
1896 Montgomery, Alexander, Natick.
1902 Montgomery, Alexander, Jr., Hadley.
1881 Moore, John H., Concord.
1897 Morgan, George H., New York, N. Y.
1914 Morgan, Mrs. J. P., Jr., New York, N. Y.
1913 Morison, Robert S., Cambridge.
1899 Morse, John T., Boston.
1909 Morse, John Torrey, 3d., Boston.
1910 Morse, Lewis Kennedy, Boxford.
1913 Morse, Robert C., Milton.
1914 Morss, Charles A., Chestnut Hill.
1914 Morss, Mrs. Charles A., Chestnut Hill.
1902 Morton, James H., Huntington, N. Y.
1896 Moseley, Charles H., Roxbury.
1896 Moseley, Frederick Strong, Newburyport.
1921 Motley, Mrs. Thomas, Jr., Boston.
1914 Munroe, Howard M., Lexington.
1900 Murray, Peter, Fairhaven.
1897 Mutch, John, Waban.

1921 Nason, Thomas W., Boston.
1917 Neal, James A., Brookline.
1899 Nevins, Mrs. David, Methuen.
1914 Newbold, Frederic R., New York, N. Y.
1874 Newman, John R., Winchester.
1874 Newton, Rev. William W., Pittsfield.
1919 Nichols, Mrs. W. L., Brookline.
1895 Nicholson, William, Framingham.
1914 Nicholson, William R., Framingham.

1906 Nickerson, William E., Boston.
1914 Norman, Mrs. Louisa P., Newport, R. I.
1881 Norton, Charles W., Allston.
1921 Norton, Miss Christine A., Medfield.
1920 Norton, Harry A., Ayer's Cliff, Quebec, Canada.

1921 O'Brien, John J., Boston.
1912 O'Conner, John, Brookline.
1898 Olmstead, Frederick Law, Brookline.
1898 Orpet, Edward O., Santa Barbara, Cal.
1919 Osgood, Miss Alice J., Wellesley Hills.
1921 Osgood, Dana, Hopedale.
1917 Osgood, Miss Fanny C., Hopedale.

1909 Page, George, Prides Crossing.
1909 Page, George William, South Lincoln.
1900 Page, Mrs. Henrietta, Boston.
1884 Paige, Clifton H., Mattapan.
1914 Paine, Robert Treat, 2d, Boston.
1908 Parker, Augustine H., Dover.
1913 Parker, Edgar, North Easton.
1911 Parker, Edward, North Easton.
1915 Parker, Miss Eleanor S., Bedford.
1921 Parker, Mrs. Harriet Talbot, Lowell.
1917 Parkhurst, Lewis, Winchester.
1891 Parkman, Henry, Boston.
1922 Parsons, Miss Mary, Lenox.
1923 Patten, Harold J., Tewkesbury.
1914 Patten, Miss Jane B., South Natick.
1909 Peabody, Francis, Milton.
1909 Peabody, Mrs. Francis, Milton.
1899 Peabody, George A., Danvers.
1907 Peirce, E. Allan, Waltham.
1916 Peirce, Edward R., Wellesley Farms.
1915 Penn, Henry, Brookline.
1917 Peterson, George H., Fair Lawn, N. J.
1899 Pfaff, Col. Charles, South Framingham.
1900 Phillips, John C., North Beverly.
1899 Phillips, Mrs. John C., North Beverly.
1899 Phillips, William, North North Beverly.
1895 Pickman, Dudley L., Boston.
1902 Pickman, Mrs. Dudley L., Boston.
1923 Pierce, Charles Sumner, Milton.
1881 Pierce, Dean, Brookline.
1898 Pierce, Mrs. F. A., Brookline.
1905 Pierson, Frank R., Tarrytown, N. Y.
1914 Pingree, David, Salem.
1919 Pocock, Frederick, Beverly Farms.
1900 Pond, Preston, Winchester.
1892 Porter, James C., Wollaston.
1884 Pratt, Laban, Dorchester.
1914 Pratt, Waldo E., Wellesley Hills.
1898 Pray, James Sturgis, Cambridge.
1914 Preston, Andrew W., Swampscott.

1903 Preston, Howard Willis, Providence, R. I.
1911 Priest, Lyman F., Gleasondale.
1901 Proctor, Thomas E., Boston.
1883 Purdie, George A., Wellesley Hills.
1899 Putnam, George, Manchester.
1900 Putnam, George J., Brookline.

1886 Quinby, Hosea M., M.D., Worcester.
1923 Quint, Harry, Boston.

1889 Rand, Harry S., North Cambridge.
1908 Rand, Miss Margaret A., Cambridge.
1903 Rawson, Herbert W., Arlington.
1882 Ray, James F., Franklin.
1890 Raymond, Walter, Pasadena, Cal.
1897 Rea, Frederic J., Norwood.
1891 Read, Charles A., Manchester.
1902 Reardon, Edmund, Cambridge.
1892 Reardon, John B., Boston.
1905 Remick, Frank W., West Newton.
1889 Rice, George C., Worcester.
1893 Rich, Miss Ruth G., Livermore Falls, Me.
1888 Rich, William E. C., Ocean Park, Me.
1887 Rich, William P., Chelsea.
1876 Richards, John J., Brookline.
1899 Richardson, Mrs. F. L. W., Charles River Village.
1912 Richardson, H. H., Brookline.
1923 Richardson, Mrs. Jennie A., Waltham.
1918 Richardson, William K., Nahant.
1900 Richardson, Dr. William L., Boston.
1905 Riggs, William Allan, Auburndale.
1917 Riley, Charles E., Newton.
1886 Ripley, Charles, Dorchester.
1903 Robb, Russell, Concord.
1909 Roberts, Miss Anna B., Boston.
1909 Robinson, Alfred E., Lexington.
1871 Robinson, John, Salem.
1893 Robinson, Walter A., Arlington.
1911 Rogers, Dexter M., Allston.
1914 Rogers, Dudley P., Danvers.
1921 Rogers, Miss Madelaine G., Brookline.
1900 Roland, Thomas, Nahant.
1922 Rose, Mrs. Edward, Chestnut Hill.
1910 Ross, Harold S., Hingham.
1892 Ross, Henry Wilson, Newtonville.
1895 Rothwell, James E., Brookline.
1923 Rousmaniere, Mrs. E. S., Boston.
1899 Roy, David Frank, Wakefield.
1875 Russell, George, Woburn.
1900 Russell, James S., Milton.
1921 Russell, John L., Dedham.
1914 Russell, Mrs. Robert S., Boston.
1919 Ryder, Charles W., Newtonville.

1893 Salisbury, William C. G., Brookline.
1915 Saltonstall, Mrs. Caroline S., Milton.

1912 Saltonstall, John L., Boston.
1912 Saltonstall, Mrs. John L., Boston.
1897 Sander, Charles J., Brookline.
1898 Sanger, Mrs. George P., Boston.
1922 Sargent, Miss Alice, Brookline.
1870 Sargent, Charles S., Brookline.
1902 Sargent, Charles Sprague, Jr., Cedarhurst, N. Y.
1899 Sargent, Mrs. Francis W., Wellesley.
1922 Sargent, Miss Georgiana, Lenox.
1875 Saunders, Miss Mary T., Salem.
1921 Schling, Max, New York, N. Y.
1895 Sears, Miss Clara E., Boston.
1899 Sears, Dr. Henry F. Boston.
1899 Sears, Mrs. J. Montgomery, Boston.
1923 Sedgwick, Mrs. Ellery, Boston.
1898 Sharp, Miss Helen, Boston.
1914 Shattuck, Dr. Frederick C., Boston.
1914 Shattuck, Mrs. Frederick C., Boston.
1899 Shaw, Francis, Brookline.
1914 Shaw, Henry S., Milton.
1899 Shaw, Mrs. Robert G., Wellesley.
1901 Shea, James B., Jamaica Plain.
1920 Shurtleff, Arthur A., Boston.
1901 Shurtleff, Josiah B., Revere.
1893 Siebrecht, H. A., New Rochelle, N. Y.
1917 Silber, Miss Charlotte G., Needham.
1899 Sleeper, Henry Davis, Boston.
1903 Smiley, Daniel, Lake Mohonk, N. Y.
1888 Smith, Charles S., Lincoln.
1919 Smith, Earnest E., Boston.
1911 Smith, John L., Swampscott.
1874 Snow, Eugene A., Allston.
1899 Sohier, Col. William D., Beverly.
1918 Spalding, Miss Dora N., Boston.
1908 Spaulding, John T., Prides Crossing.
1908 Spaulding, William S., Prides Crossing.
1897 Sprague, Isaac, Wellesley Hills.
1922 Sprague, Phineas W., Boston.
1884 Stearns, Charles H., Brookline.
1893 Stearns, Frank W., Newton.
1896 Stedman, Henry R., M. D., Brookline.
1914 Stevens, Mrs. Nathaniel, North Andover.
1919 Stewart, George F., Waltham.
1918 Stimpson, Harry F., Chestnut Hill.
1901 Stone, Charles A., Newton.
1889 Stone, Charles W., Boston.
1910 Stone, Mrs. Francis H., So. Dartmouth.
1914 Stone, Galen L, Brookline.
1896 Stone, Prof. George E., Amherst.
1914 Stone, J. Winthrop, Watertown.
1914 Stone, Nathaniel H., Milton.
1917 Storey, Moorfield, Boston.
1905 Storrow, James J., Boston.
1918 Stranger, David C., West Newbury.
1905 Stratton, Charles E., Boston.

1906 Strout, Charles S., Biddeford, Me.
1914 Sturgis, Miss Evelyn R., Manchester.
1902 Sturgis, Richard Clipston, Boston.
1916 Sturtevant, Miss Grace, Wellesley Farms.
1921 Sturtevant, Robert Swan, Wellesley Farms.
1910 Sullivan, Martin, Jamaica Plain.
1912 Swan, Charles H., Jamaica Plain.
1891 Sweet, Everell F., Malden.
1916 Swett, Raymond W., Newton.
1904 Sylvester, Edmund Q., Hanover.

1900 Taylor, Mrs. Thomas, Jr., Columbia, S. C.
1913 Tedcastle, Mrs. Arthur W., Hyde Park.
1917 Thacher, Miss Elizabeth B., Roxbury.
1921 Thairlwall, William C., Boston.
1912 Thatcher, Arthur E., Hull's Cove, Me.
1898 Thatcher, William, Brookline.
1900 Thayer, Mrs. Bayard, South Lancaster.
1903 Thayer, Henry J., Boston.
1899 Thayer, John E., South Lancaster.
1899 Thayer, Mrs. John E., South Lancaster.
1899 Thayer, Mrs. Nathaniel, South Lancaster.
1899 Thiemann, Hermann, Owosso, Mich.
1899 Thomas, W. B., Manchester.
1921 Thompson, Eben F., Worcester.
1910 Thurlow, George C., West Newbury.
1913 Thurlow, Winthrop H., West Newbury.
1923 Titus, Mrs. Gertrude F., Swampscott.
1896 Toppan, Roland W., Newburyport.
1899 Tower, Miss Ellen May, Lexington.
1893 Trepess, Samuel J., Glencove, L. I., N. Y.
1922 Tudor, Mrs. Henry D., Cambridge.
1917 Tufts, Bowen, Medford.
1910 Turner, Chester Bidwell, Stoughton.
1914 Tyler, Charles H., Boston.
1919 Tyndall, David, Brockton.

1901 Underwood, Loring, Belmont.

1921 Van Baarda, P. J., North Cambridge.
1919 Vander Voet, Christian, Jamaica Plain.
1873 Vander-Woerd, Charles, Roxbury.
1881 Vaughan, J. C., Chicago, Ill.
1899 Vaughan, William Warren, Boston.
1884 Vinal, Miss Mary L., Somerville.

1916 Wagstaff, Archibald, Wellesley Hills.
1876 Walcott, Henry P., M. D., Cambridge.
1895 Waldo, C. Sidney, Jamaica Plain.
1907 Walton, Arthur G., Wakefield.

1902 Warburton, Chatterton, Fall River.
1912 Wardwell, Mrs. T. Otis, Haverhill.
1894 Ware, Miss Mary L., Boston.
1909 Warren, Bentley W., Boston.
1884 Watson, Thomas A., East Braintree.
1914 Watters, W. F., Boston.
1905 Webster, Edwin S., Chestnut Hill.
1914 Webster, Mrs. Edwin S., Chestnut Hill.
1905 Webster, Frank G., Boston.
1907 Webster, George H., Haverhill.
1896 Webster, Hollis, Cambridge.
1905 Webster, Laurence J., Chestnut Hill.
1909 Weeks, Andrew Gray, Marion.
1902 Welch, Edward J., Dorchester.
1914 Weld, Mrs. Charles G., Brookline.
1917 Weld, Rudolph, Boston.
1914 Weld, Mrs. Stephen M., Wareham.
1912 Wellington, Mrs. Arthur W., Boston.
1917 Wellington, William H., Boston.
1882 West, Mrs. Maria L., Neponset.
1919 Wheeler, Everett P., Rockland.
1889 Wheeler, James, Natick.
1897 Wheeler, Wilfrid, Concord.
1923 Wheelwright, Miss Mary C., Boston.
1919 Whitcomb, Myron L., Haverhill.
1901 White, Mrs. Charles T., Boston.
1909 White, Harry K., Milton.
1917 Whitehouse, Mrs. Francis M., Manchester.
1905 Whitman, William, Brookline.
1894 Whitney, Arthur E., Winchester.
1894 Whitney, Ellerton P., Milton.
1917 Whittemore, Charles, Cambridge.
1915 Wigglesworth, Frank, Milton.
1899 Wigglesworth, George, Milton.
1889 Wilde, Mrs. Albion D., Canton.
1897 Wilkie, Edward A., Newtonville.
1899 Williams, Miss Adelia Coffin, Roxbury.
1905 Williams, George Percy, Boston.
1899 Williams, John Davis, Boston.
1905 Williams, Mrs. J. Bertram, Cambridge.
1905 Williams, Mrs. Moses, Brookline.
1911 Williams, Ralph B., Dover.
1915 Wilson, E. H., Jamaica Plain.
1914 Wilson, Fred A., Nahant.
1919 Wilson, James A., Lexington.
1881 Wilson, William Power, Boston.
1921 Winkler, Edward, Wakefield.
1917 Winslow, Arthur, Boston.
1905 Winsor, Robert, Weston.
1920 Winter, Miss Hattie B., Mansfield.
1906 Winter, Herman L., Portland, Me.
1914 Winthrop, Grenville L., Lenox.

1914 Winthrop, Mrs. Robert, New York, N. Y.
1914 Winthrop, Mrs. Robert C., Jr., Boston.
1920 Wister, John C., Philadelphia, Pa.
1921 Wollrath, Henry J., Waltham
1905 Woodberry, Miss E. Gertrude, Winter Hill.
1905 Woodbury, John, Canton.
1906 Woodward, Mrs. Samuel Bayard, Worcester.
1920 Worthley, L. H., Arlington.
1917 Wright, George S., Watertown.
1921 Wyman, Richard M., Framingham.
1919 Wyman, Walton G., North Abington.
1900 Wyman, Windsor H., North Abington.

1921 Young, Mrs. Charlotte W., Auburndale.

ANNUAL MEMBERS

1921 Abbott, Mrs. Gordon, Boston.
1913 Adams, Charles F., Jamaica Plain.
1919 Alexander, J. K., East Bridgewater.
1921 Arnott, Peter, Chestnut Hill.

1912 Babcock, Miss Mabel Keyes, Boston.
1911 Bacon, Augustus, Roxbury.
1915 Baker, Mrs. G. B., Chestnut Hill.
1918 Barnes, Rowland H., Newton Highlands.
1916 Barron, Leonard, Garden City, N. Y.
1917 Beal, Thomas P., Jr., Boston.
1923 Biddle, Miss E. W., Lenox.
1917 Bögholt, Christian M., Newport, R. I.
1921 Boyle, Charles F., Boston.
1901 Bradley, Miss Abby A., Hingham.
1921 Breed, George A., Stockbridge.
1922 Brewer, Robert D., Hingham.
1909 Brigham, Mrs. Clifford, Milton.
1916 Brown, Mrs. G. Winthrop, Chestnut Hill.
1921 Burke, Patrick W., Brookline.
1922 Burnhome, Mrs. M. S., Boston.
1921 Caddick, Edgar, Wellesley Hills.
1914 Campbell, Ernest W., Wollaston.
1910 Camus, Emil, Boston.
1917 Carlquist, Sigurd W., Lenox.
1920 Cheney, Mrs. Frederick E., Concord.
1917 Child, H. Walter, Boston.
1918 Clarke, Hermann F., Brookline.
1918 Cogger, Thomas, Melrose.
1921 Cole, Harry, Readville.
1914 Colt, James D., Chestnut Hill.
1907 Colt, Mrs. James D., Chestnut Hill.
1919 Conant, Miss Margaret W., West Medford.
1917 Conant, Mrs. William C., Melrose.
1917 Coolidge, Mrs. W. H., Boston.
1915 Copson, William A., Roslindale.
1914 Crocker, Mrs. George Glover, Boston.
1914 Crocker, Joseph Ballard, Chatham.
1914 Crompton, Miss Mary A., Worcester.
1917 Curtis, Allen, Boston.
1914 Cushing, Mrs. Harvey, Brookline.

1910 Dahl, Frederick William, Roxbury.
1917 Dalton, Philip S., Milton.

1921 Darling, Edgar W., New Bedford.
1921 Dickinson, Edward F., Billerica.
1911 Dolansky, Frank J., Lynn.
1918 Donald, James, Hingham.
1921 Drew, Fred, M. D., Boston.
1921 Duly, Richard J., Newton.

1919 Emery, Frederick L., Lexington.
1916 Estabrooks, Dr. John W., Wollaston.
1922 Eustis, Mrs. Augustus H., Readville.

1902 Farlow, Mrs. William G., Cambridge.
1919 Farrington, Edward I., Weymouth Heights.
1921 Fish, A. J., New Bedford.
1922 Fish, George L., South Billerica.
1917 Fiske, David L., Grafton.
1922 Fletcher, Miss Effie J., Boston.
1903 Freeman, Miss Harriet E., Boston.
1919 French, C. H., West Roxbury.

1912 Gage, L. Merton, Groton.
1923 Geddes, Mrs. James, Brookline.
1922 Gersdorff, Mrs. Carl A. de, Stockbridge.
1919 Golby, Walter H., Jamaica Plain.
1917 Gordon, George, Beverly.
1921 Gorney, Elijah S., Boston.
1917 Graton, Louis, Whitman.
1900 Grey, Robert Melrose, Belmont, Cuba.

1919 Hall, Joseph B., Cambridge.
1908 Hamilton, Mrs. George Langford, Magnolia.
1912 Hardy, John H., Jr., Littleton.
1917 Hathaway, Walter D., New Bedford.
1918 Hayes, Herbert W., Waban.
1910 Hayward, Mrs. W. E., Ipswich.
1922 Heredia, Mrs. Carlos M. de, Lenox.
1916 Hibbard, Miss Ann, West Roxbury.
1914 Higginson, Mrs. Alexander H., Manchester.
1920 Higginson, Mrs. Frederic, Brookline.
1923 High, Walter E., Manchester, N. H.
1902 Hildreth, Miss Ella F., Westford.
1902 Hill, Arthur Dehon, Boston.
1921 Hill, John Edward, Providence, R. I.
1912 Hollingsworth, Mrs. Sumner, Boston.
1913 Holmes, Eber, Halifax.
1923 Hood, Frederic C., Brookline.
1917 Howard, W. D., Milford.
1900 Howden, Thomas, Hudson.
1917 Howe, Henry S., Brookline.
1902 Hubbard, Allen, Newton Centre.
1921 Hughes, Thomas H., New Bedford.
1923 Hutchins, Mrs. Edward W., Boston.

1922 Jackson, Mrs. James, Boston.
1921 Jenkins, Allen J., Shrewsbury.
1913 Jenkins, Edwin, Lenox.

1916 Jenks, Albert R., West Acton.
1921 Johnson, John, Pittsfield.
1923 Johnston, John Robert, Jamaica Plain.
1903 Johnston, Robert, Lexington.

1912 Kirkegaard, John, Bedford.
1921 Kunan, Ernst, Arlington.

1914 Leach, C. Arthur, South Hamilton.
1914 Leary, Dr. Timothy, Jamaica Plain.
1904 Leuthy, A., Roslindale.
1902 Lewis, E. L., Taunton.
1901 Loring, Mrs. Thacher, Boston.
1903 Lumsden, David, Washington, D. C.

1922 Mackie, Mrs. David Ives, Great Barrington.
1923 Manning, Mrs. Charles B., Manchester, N. H.
1922 Mercer, Mrs. William R., Doylestown, Pa.
1919 Millett, Charles H., Melrose Highlands.
1917 Mixter, Dr. Samuel J., Boston.
1914 Morse, Frank E., Auburndale.

1920 Naber, Henry L. F., West Roxbury.
1916 Nehrling, Prof. Arno H., Ithaca, N. Y.
1903 Nixon, J. Arthur, Taunton.

1915 Parker, A. S., Stoneham.
1923 Parker, Horace B., Boston.
1921 Parks, Mrs. Frances R., Chestnut Hill.
1923 Payson, Miss Grace M., Magnolia.
1908 Peabody, Mrs. W. Rodman, Hyde Park.
1914 Pembroke, A. A., Beverly.
1921 Pinault, Z. R., Fairhaven.
1922 Plimpton, Mrs. Harold, Hingham.
1921 Pope, Mrs. Henrietta Marquis, Boston.
1902 Pritchard, John, Bedford Hills, N. Y.
1912 Proctor, Dr. Francis I., Wellesley.

1912 Reed, H. B., Auburndale.
1914 Rees, Ralph W., Ithaca, N. Y.
1900 Robb, Peter B., Whitinsville.
1921 Rogers, Alfred E. T., Prides Crossing.
1921 Rogers, Andrew K., Readville.
1915 Rosenthal, Wolf, Boston.
1922 Russell, Mrs. Charles F., Boston.
1910 Rust, William C., Brookline.
1918 Rutherford, William D. F., Norfolk.
1918 Ryder, Robert L., Lexington.

1907 Sanborn, Edward W., Boston.
1920 Saunders, Maurice M., Boston.
1910 Sears, Prof. F. C., Amherst.
1907 Seaver, Robert, Jamaica Plain.
1923 Sexton, Edwin, Elsmere, N. Y.
1922 Shaw, Mrs. Brackley, Chestnut Hill.
1921 Shaw, Mrs. Quincy A., Boston.
1907 Sim, William, Cliftondale.
1920 Simmons, Miss Annie E. E., Northampton.

1914 Smith, George N., Wellesley Hills.
1922 Smith, Mrs. Henry P., Boston.
1914 Spaulding, Mrs. Samuel S., Springfield Center, N. Y.
1921 Spencer, S. E., Woburn.
1914 Sprague, George H., Hamilton.
1922 Steele, Fletcher, Boston.
1917 Stephen, A. L., Waban.
1923 Stevens, Harold, Salem.
1914 Stevenson, Robert H., Readville.
1921 Stewart, Henry, Waltham.
1922 Stewart, John W., Martinsburg, W. Va.
1914 Storey, Mrs. Richard C., Boston.
1914 Sturgis, Miss Lucy Codman, Boston.
1904 Symmes, Samuel S., Winchester.

1923 Thatcher, Austin E., Dorchester.
1921 Thayer, Clark Leonard, Amherst.
1914 Thayer, John E., Jr., Lancaster.
1919 Thommen, Gustave, Somerville.
1919 Tillinghast, Joseph J., Hyde Park.
1909 Tracy, B. Hammond, Wenham.
1922 Turner, Miss Mabel E., Malden.
1922 Tyson, Mrs. Russell, Chicago, Ill.

1911 Ufford, Charles A., Dorchester.

1922 Ware, Mrs. Whitman, Boston.
1922 Warner, Dr. Charles T., Boston.
1914 Waterer, Anthony, 3d, Philadelphia, Pa.
1914 Waterer, Hosea, Philadelphia, Pa.
1915 Wetterlow, Eric H., Manchester.
1909 Wheeler, George F., Concord.
1919 Wheeler, Harry A., Lexington.
1917 White, Mrs. Joseph H., Brookline.
1922 Whitney, Byam, Boston.
1920 Whitney, Leon F., Northampton.
1913 Williams, Mrs. Emile F., Cambridge.
1919 Williams, Henry M., Haverhill.
1923 Willis, C. W., Bedford.
1922 Willis, Mrs. C. W., Bedford.
1921 Wollrath, Albert J., Waltham.

Form of Bequest

I give and bequeath to the Massachusetts Horticultural Society the sum of ..... to be used as the Trustees may direct for the promotion of horticulture in Massachusetts.

.....